

5. Environmental Analysis

5.11 POPULATION AND HOUSING

This section of the DEIR for the Town of Yucca Valley examines the potential for socioeconomic impacts of the proposed project, including changes in population, employment, and demand for housing, particularly housing cost/rent ranges defined as “affordable.”

Current website information and pertinent documents from the Town of Yucca Valley and other appropriate agencies were used in preparation of this section, including the California Department of Finance, Southern California Association of Governments, and the United States Census Bureau

5.11.1 Environmental Setting

5.11.1.1 Regulatory Setting

State Regulations

California Housing Element Law

California planning and zoning law requires each city and county to adopt a general plan for future growth (California Government Code Section 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the Housing and Community Development Department (HCD) estimates the relative share of California’s projected population growth that would occur in each county based on California Department of Finance (DOF) population projections and historical growth trends. These figures are compiled by HCD in a Regional Housing Needs Assessment (RHNA) for each region of California. Where there is a regional council of governments, the HCD provides the RHNA to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares gives cities and counties the opportunity to comment on the proposed allocations. The HCD oversees the process to ensure that the council of governments distributes its share of the state’s projected housing need.



State law recognizes the vital role local governments play in the supply and affordability of housing. To that end, California Government Code requires that the housing element achieve legislative goals to:

- Identify adequate sites to facilitate and encourage the development, maintenance, and improvement of housing for households of all economic levels, including persons with disabilities.
- Remove, as legally feasible and appropriate, governmental constraints to the production, maintenance, and improvement of housing for persons of all incomes, including those with disabilities.
- Assist in the development of adequate housing to meet the needs of low and moderate income households.
- Conserve and improve the condition of housing and neighborhoods, including existing affordable housing. Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
- Preserve for lower income households the publicly assisted multifamily housing developments in each community.

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The State of California Housing Element laws (Section 65580 to 65589 of the California Government Code) requires that each city and county identify and analyze existing and projected housing needs within its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community commensurate with local housing needs.

Regional Planning

Southern California Association of Governments

The Southern California Association of Governments (SCAG) represents Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. It is a regional planning agency and serves as a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. The Town of Yucca Valley is within the San Bernardino Associated Governments (SANBAG) subregion.

Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2012, SCAG adopted *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future* (2012 RTP/SCS). SCAG has placed greater emphasis than ever before on sustainability and integrated planning in the 2012 RTP/SCS. The 2012 RTP/SCS vision encompasses three principles that collectively work as the key to the region’s future: mobility, economy, and sustainability. The 2012 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards as set down by the federal Clean Air Act. The 2012 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play, and how they will move around (SCAG 2012).

5.11.1.2 Existing Setting

Methodology

The project area’s demographics are examined in the context of existing and projected populations and housing units for the San Bernardino County region and the Town of Yucca Valley. Information on population, housing, and employment for the project area is available from several sources:

- **California Department of Finance.** The DOF prepares and administers California’s annual budget. Other duties include estimating population demographics and enrollment projections. DOF’s Table E-5, “City/County Population and Housing Estimates,” reports on population and housing estimates for the state, counties, and cities, benchmarked to base year 2010.
- **Southern California Association of Governments.** Policies, programs, and employment, housing, and population projections adopted by SCAG to achieve regional objectives are expressed in its 2012 RTP/SCS.
- **United States Census Bureau.** The official United States Census is described in Article I, Section 2 of the Constitution of the United States. It calls for an actual enumeration of the people every 10 years, to be used for apportionment among the states of seats in the House of Representatives. The United States Census Bureau publishes population and household data gathered in the decennial census.
 - **American Community Survey.** The American Community Survey is facilitated by the U.S. Census Bureau and provides estimates of population, housing, household, economic, and transportation trends between decennial censuses.

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Population

Population Trends

As housing has become more expensive and buildable land scarce in the Los Angeles metropolitan region, San Bernardino County has experienced significant growth in population. The county saw its first appreciable growth spurt between 1980 and 1990, when the county population passed the one million mark. According to the U.S. Census, San Bernardino County witnessed a 20.5 percent increase in population between 1990 and 2000 and a 19.1 percent increase in population between 2000 and 2010. Since 2010, the DOF estimates that the population in San Bernardino rose approximately 28,709 to 2,063,919 in 2012, or 1.4 percent.

The Town's population was 16,403 in 1990 and increased to 16,865 persons in 2000. As shown in Table 5.11-1, the 2010 Census reported the population of the Town as 20,700, an increase of 22.7 percent over 10 years. The DOF further estimates Yucca Valley's population at 20,916 in 2012, an increase of 1 percent since 2010. The Census estimated that there were 6,949 households in 2000, with a 16 percent increase to 8,274 households in 2010. Family households accounted for 63.5 percent and nonfamily households for 36.5 percent of the total number of households.

Table 5.11-1
Population Growth Trends in Yucca Valley and San Bernardino County

Year	Town of Yucca Valley		San Bernardino County	
	Population	Percent Change	Population	Percent Change
2000	16,865	N/A	1,709,434	N/A
2001	17,023	0.9%	1,741,416	1.9%
2002	17,414	2.3%	1,782,268	2.3%
2003	17,813	2.3%	1,825,379	2.4%
2004	18,504	3.9%	1,875,063	2.7%
2005	19,352	4.6%	1,921,423	2.5%
2006	20,048	3.6%	1,959,715	2.0%
2007	20,483	2.2%	1,989,690	1.5%
2008	20,627	0.7%	2,009,594	1.0%
2009	20,651	0.1%	2,019,432	0.5%
2010	20,700	0.2%	2,035,210	0.8%
2011	20,764	0.3%	2,046,619	0.6%
2012	20,916	0.7%	2,063,919	0.8%

Source: DOF 2012c, U.S. Census 2013.

Note: Population counts for the years 2000 and 2010 are derived from U.S. Census data; counts for other years consist of estimates calculated by the DOF. The population identified in DEIR Chapter 4 includes a vacancy rate of 5 percent, adjusted down from the 13 percent vacancy rate identified by the California DOF.

Housing

Housing Trends

Over the last decade and a half, the rate of housing growth in Yucca Valley has largely reflected that in San Bernardino County. As shown in Table 5.11-2, the rate of housing growth in both the Town and the county gradually grew through the first half of the 2000s and peaked in the middle of the decade. In the period between 2006 and the present, housing growth decreased substantially in both jurisdictions. Despite this slowdown, both experienced a substantial increase in units between 2000 and 2012. During this period, Yucca Valley gained 1,617 dwelling units, a change of approximately 20 percent. San Bernardino County gained 101,542 units between 2000 and 2012, a change

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of approximately 17 percent. Housing growth and population growth largely kept pace with each other, as seen when population growth rates in Table 5.11-1 are compared with housing growth rates in Table 5.11-2. In 2012, the Town of Yucca Valley had an estimated 9,569 housing units, which is 1.4 percent of the housing stock in the county.

Table 5.11-2
Historical Housing Growth Trends in Yucca Valley and San Bernardino County

Year	Town of Yucca Valley		San Bernardino County	
	Dwelling Units	Percent Change	Dwelling Units	Percent Change
2000	7,952	N/A	601,369	N/A
2001	7,988	0.5%	606,213	0.8%
2002	8,059	0.9%	613,852	1.3%
2003	8,169	1.4%	623,219	1.5%
2004	8,415	3.0%	634,061	1.7%
2005	8,783	4.4%	647,962	2.2%
2006	9,159	4.3%	664,542	2.6%
2007	9,420	2.9%	680,324	2.4%
2008	9,525	1.1%	689,597	1.4%
2009	9,560	0.4%	694,836	0.8%
2010	9,558	0.0%	699,637	0.7%
2011	9,562	0.0%	701,443	0.4%
2012	9,569	0.0%	702,911	0.2%

Source: DOF 2012b; DOF 2012c.

Note: Unit counts for the years 2000 and 2010 are derived from U.S. Census data; unit counts for other years consist of estimates calculated by DOF. DOF housing unit estimates are based on U.S. Census data that is adjusted by adding new construction and annexations, subtracting demolitions, and adjusting for units lost or gained by conversions. Housing unit estimates for existing conditions in Chapter 4 of this DEIR were calculated by multiplying the acreage of residential parcels by reasonable density assumptions. Although these differing methodologies result in modest unit count differences, DOF estimates are shown in this chapter because they include both a historical growth trend of units and a 2012 itemization of units by type.

Existing Housing Units

Yucca Valley has traditionally been a single-family residential community. In 2012, approximately 78 percent of the Town's housing stock was estimated to consist of single-family units. Table 5.11-3, *Housing Units in Yucca Valley and San Bernardino County by Type*, identifies the prevalence of housing types in the Town of Yucca Valley and San Bernardino County.

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Table 5.11-3
Housing Units in Yucca Valley and San Bernardino County by Type (2012)

Type	Town of Yucca Valley		San Bernardino County	
	Number of Units	Percent	Number of Units	Percent
Single-Family Detached	7,416	77.1%	500,915	71.3%
Single-Family Attached	299	3.1%	24,819	3.5%
Multifamily (2-4 Units)	702	7.3%	45,242	6.4%
Multifamily (5 or More Units)	396	4.1%	88,349	12.6%
Mobile Homes	756	7.9%	43,586	6.2%
Totals	9,569	100%	702,911	100%
	Percent Vacant = 13.4%		Percent Vacant = 12.6%	
	Household Size = 2.5%		Household Size = 3.3%	

Source: DOF 2012b.

Note: DOF housing unit estimates are based on U.S. Census data that is adjusted by adding new construction and annexations, subtracting demolitions, and adjusting for units lost or gained by conversions. Housing unit estimates for existing conditions in Chapter 4 of this DEIR were calculated by multiplying the acreage of residential parcels by reasonable density assumptions. Although these differing methodologies result in modest unit count differences, DOF estimates are shown in this chapter because they include both a historical growth trend of units and a 2012 itemization of units by type.

In 2012, the DOF estimated the vacancy rate to be approximately 13 percent in both Yucca Valley and San Bernardino County. Traditionally, a high vacancy rate indicates either the existence of a high number of undesired units or an oversupply of units. The high rates in the Town and county are largely a product of the recent economic recession and associated housing readjustment.¹

Housing Costs

High housing costs can lead to a number of unwanted situations, such as overcrowding, overpayment, and deferred maintenance. The calculation for rental housing affordability assumes that a household can expend up to 30 percent of its monthly income on housing. The calculation for ownership affordability assumes that a household can expend up to 35 percent of its monthly income on housing because of the equity and tax benefits of homeownership.

The affordability of housing in Yucca Valley is determined by market factors and residents' ability to pay. For decades, Yucca Valley has been celebrated as an affordable place for seniors to retire. Residents of all ages are attracted to the community's affordable housing prices and rents. Although housing in Yucca Valley has always been relatively affordable, the downturn of the national economy further depressed housing prices. However, this trend may reverse as the national and regional economies recover.

In 2012, the median home sales price in Yucca Valley was \$84,000 (DataQuick 2013). This shows that in Yucca Valley, home resale prices are affordable to the community's very low, low, and moderate income households. The U.S. Census Bureau identified a median housing value of \$156,500 for owner-occupied units in Yucca Valley between 2009 and 2011 (U.S. Census 2011a). This is significantly different from the median home sales price, indicating that the existing housing stock includes luxury homes that have not recently been on the market. The median rent in Yucca Valley between 2009 and 2011 was \$834 per month (U.S. Census 2011a). This median rent is affordable to low and moderate income households and within reach for four-person, very low income households. Despite the affordability of rental units in Yucca Valley, however, the inventory of multifamily projects in Town is relatively limited.

¹ The General Plan Update and this DEIR assumes a more conservative vacancy rate of 5 percent, adjusted down from the 13 percent rate identified by the DOF to account for housing market improvements.

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Regional Housing Needs Assessment

The Town of Yucca Valley's RHNA allocation for the 2014–2021 planning period is 930 units. This number, which includes 358 low and very low income units, was calculated by SCAG based on the Town's share of the region's employment growth, migration and immigration trends, and birth rates.

Table 5.11-4
Town of Yucca Valley 2014–2021 Regional Housing Needs Assessment

Income Category	Percentage	Target (Number of Units)
Very Low Income	22.5%	209
Low Income	16.0%	149
Moderate Income	18.5%	172
Above Moderate Income	43.0%	400
Total	100%	930

Source: SCAG 2013.

Employment

Employment Trends

According to the California Employment Development Department (EDD), the growth rate of employment in Yucca Valley slowed down during the first half of the 2000s. The Town lost jobs every year between 2007 and 2010, years considered the height of the nationwide great recession. Employment in San Bernardino County mirrored that in the Town, with the county experiencing a net loss of jobs in 2007, 2008, 2009, and 2010. EDD's employment estimates for 2011 and 2012 indicate that employment growth has begun to accelerate in the region. However, employment in the Town and county has not yet reached the peak employment levels of 2006. The Town's employment and annual employment change percentages relative to those of the county are shown in Table 5.11-5.

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Table 5.11-5
Historical Employment Growth Trends in Yucca Valley and San Bernardino County

Year	Town of Yucca Valley		San Bernardino County	
	Employment (Persons)	Percent Change	Employment (Persons)	Percent Change
2000	6,100	N/A	704,000	N/A
2001	6,200	1.6%	724,000	2.8%
2002	6,400	3.2%	743,200	2.7%
2003	6,500	1.6%	757,500	1.9%
2004	6,800	4.6%	784,400	3.6%
2005	7,000	2.9%	808,400	3.1%
2006	7,100	1.4%	820,700	1.5%
2007	7,100	0.0%	815,100	-0.7%
2008	6,900	-2.8%	794,500	-2.5%
2009	6,500	-5.8%	747,400	-5.9%
2010	6,400	-1.5%	738,900	-1.1%
2011	6,500	1.6%	747,100	1.1%
2012	6,700	3.1%	776,000	3.9%

Source: EDD 2012; EDD 2013.

Note: Estimates are not seasonally adjusted. Employment is defined as the number of individuals, aged 16 years or older, who are working. Existing employment identified in Chapter 4 of this DEIR is based on employment generation based on nonresidential building square footage by land use type.

Existing Employment

Table 5.11-6 shows the Town's workforce by occupation and industry. According to estimates calculated by the U.S. Census for the 2007–2011 period, the Town of Yucca Valley had an employed civilian labor force (16 years and older) of 7,508 persons. The largest occupational categories during that period were sales and office occupations and management, business, science, and arts occupations, which together accounted for approximately 59.5 percent of the civilian jobs available in the Town (U.S. Census 2011b). During the 2007–2011 period, the Town's workforce comprised 0.9 percent of San Bernardino County's employed civilian workforce of 815,102 (U.S. Census 2011c).

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**Table 5.11-6
Town Employment by Sector (2007–2011)**

Occupation/Industry	Number	Percent
Occupation		
Management, business, science, and arts occupations	2,167	28.9%
Service occupations	1,304	17.4%
Sales and office occupations	2,300	30.6%
Natural resources, construction, and maintenance occupations	1,282	17.1%
Production, transportation, and material moving occupations	455	6.1%
Total	7,508	100%
Industry		
Agriculture, forestry, fishing and hunting, and mining	0	0.0%
Construction	855	11.4%
Manufacturing	420	5.6%
Wholesale trade	18	0.2%
Retail trade	1,071	14.3%
Transportation and warehousing, and utilities	372	5.0%
Information	143	1.9%
Finance and insurance, and real estate and rental and leasing	411	5.5%
Professional, scientific, and management, and administrative and waste management services	423	5.6%
Educational services, and health care and social assistance	1,759	23.4%
Arts, entertainment, and recreation, and accommodation and food services	801	10.7%
Other services, except public administration	550	7.3%
Public administration	685	9.1%
Total	7,508	100%

Source: 2007–2011 American Community Survey (U.S. Census 2011b).

Note: Employment figures count civilian employees only. Existing employment identified in Chapter 4 of this DEIR is based on employment generation based on nonresidential building square footage by land use type.

Jobs-Housing Ratio

The jobs-housing ratio is a general measure of the total number of jobs and number of housing units in a defined geographic area, without regard to economic constraints or individual preferences. The balance of jobs and housing in an area, in terms of the total number of jobs and housing units as well as the type of jobs versus the price of housing, has implications for mobility, air quality, and the distribution of tax revenues. The jobs-housing ratio is one indicator of a project's effect on growth and quality of life in the project area. SCAG applies the jobs-housing ratio at the regional and subregional levels to analyze the fit between jobs, housing, and infrastructure. A major focus of SCAG's regional planning efforts has been to improve this balance, although jobs-housing goals and ratios are advisory only. No ideal jobs-housing ratio is adopted in state, regional, or city policies. However, the California DOF provides a quantitative definition by estimating that a healthy jobs-housing balance is one new home built for every 1.5 jobs created (Little Hoover Commission 2013).

Yucca Valley is a housing-rich and jobs-poor community. Using SCAG household and employment estimates shown in Table 5.11-7, below, the town had a jobs-housing ratio of 0.53 in 2008 (SCAG 2012). San Bernardino County was estimated to have much more balanced ratio of 1.10. SCAG predicts that between 2008 and 2035, the town will have an increasingly imbalanced jobs-housing balance while the region will experience a stronger jobs-housing balance over time. Yucca Valley is, in some ways, a quintessential bedroom community. The vast majority of working residents commute to jobs outside of town. The local economy predominantly provides services to residents in the

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Town and surrounding areas in the Morongo Basin. If present trends continue, these characteristics would continue and strengthen: an even higher percentage of local jobs would be in the local-serving sectors of the economy, and even more employed residents would work outside of the town.

Table 5.11-7
Population and Employment Projections for Yucca Valley and San Bernardino County

	Town of Yucca Valley			San Bernardino County		
	2008	2020	2035	2008	2020	2035
Population	20,700	23,000	26,200	2,016,000	2,268,000	2,750,000
Households	8,300	9,900	11,800	606,000	698,000	847,000
Housing Units ¹	8,715	10,395	12,390	636,300	732,900	889,350
Employment	4,600	5,100	6,000	701,000	810,000	1,059,000
Jobs-Housing Ratio	0.53	0.49	0.48	1.10	1.11	1.19

Source: SCAG 2012–2035 RP/SCS Growth Forecast (SCAG 2012).

Notes: Existing employment identified in Chapter 4 of this DEIR is based on employment generation based on non-residential building square footage by land use type.

¹ Housing units in SCAG projections are estimated based on number of households and a vacancy rate of 5 percent.

Planning Projections

Southern California Association of Governments

SCAG undertakes comprehensive regional planning with an emphasis on transportation, producing a Regional Transportation Plan/Sustainable Communities Strategy. The 2012–2035 RTP/SCS provides projections of population, households, and total employment for both the Town of Yucca Valley and San Bernardino County from 2008 through 2035. Based on their share of California’s and the region’s employment growth, migration and immigration trends, and birth rates, SCAG projects that population, housing, and employment will grow at an increasing rate in Yucca Valley and the county. These projections are summarized in Table 5.11-7.

The 2012–2035 RTP/SCS projects that the County of San Bernardino is projected to grow by an average of approximately 30,000 persons per year (or 36 percent) and an average of approximately 9,000 households per year between 2008 and 2035. Employment in the county during the same period is projected to increase by an average of approximately 13,000 jobs per year. According to SCAG, Riverside and San Bernardino counties will continue to see the greatest percentage in population growth in the SCAG region. By 2035, approximately 27 percent of SCAG residents are anticipated to live in San Bernardino and Riverside counties. Approximately 24 percent of jobs in the SCAG region are anticipated to be in the two counties.

The Town of Yucca Valley is expected to grow slower than San Bernardino County between 2008 and 2035. During that period, SCAG projects that the population of the Town will increase by 5,500 to 26,200, or 21 percent. This growth would result from an average increase of approximately 200 persons per year. The 2012–2035 RTP/SCS projects that the Town will also experience a net increase of 3,500 households and 1,400 jobs between 2008 and 2035, or an average of 130 new households per year and 52 jobs per year.

5.11.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

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- P-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- P-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- P-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

5.11.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

It is important to note the differences between buildout and SCAG projections. Buildout of the Town is not linked to a development timeline and is based on reasonable worst-case buildout of the parcels within the Town as identified in the Land Use Plan.² In addition, the proposed project provides policy level guidance and does not contain specific project proposals. On the other hand, SCAG projections are based on annual increments in order to develop regional projections for land use and transportation planning over a 20-year horizon. Since buildout of the proposed project is not linked to a time frame, it is not appropriate to make a direct comparison with the population, housing, and employment projections provided by SCAG. Based on the historic rate of growth in the Town,³ the amount of development that the Town of Yucca Valley can accommodate within the land use plan is not likely to occur within the next 50 years, let alone within the 20-year planning horizon identified by SCAG. The analysis in this chapter utilizes SCAG projections for general comparison purposes.

IMPACT 5.11-1: IMPLEMENTATION OF THE GENERAL PLAN UPDATE WOULD DIRECTLY RESULT IN POPULATION GROWTH IN THE TOWN. [THRESHOLD P-1]

Impact Analysis: One of the purposes of the General Plan Update is to adequately plan and accommodate future growth. As discussed in Chapter 3, *Project Description*, of this DEIR, implementation of the land use plan would result in buildout of 27,229 dwelling units. Consequently, the General Plan Update accommodates 64,565 people. According to DOF, in 2012, the population of Town of Yucca Valley was approximately 20,916. Buildout in accordance with the General Plan Update would therefore result in a population increase of 43,649, a substantial increase in population compared to existing conditions.

Buildout of the proposed land use plan would also involve the development of 1,751 acres of job-generating land uses in Yucca Valley by designating parcels for commercial, industrial, and mixed uses. These land uses would accommodate an estimated 20,963,702 square feet of commercial space and are estimated to generate 34,926 jobs in the Town. According to DOF, in 2012, Yucca Valley provided 6,700 jobs. Buildout in accordance with the General Plan Update would therefore result in 27,387 additional jobs in the Town, a substantial increase in employment compared to existing conditions and an increase that would indirectly induce population growth.

Hypothetical buildout of the proposed land use plan would triple the population of Yucca Valley and quadruple the

² Buildout to the maximum levels permitted by the proposed land use is not anticipated to occur in the future. The Town has historically experienced development levels that do not achieve the maximum allowable density/intensity on every parcel and are, on average, lower than allowed in the proposed General Plan Update. Consequently, the General Plan Update buildout projections are based on similar development densities/intensities as historic levels of development intensity in the Town.

³ According to the U.S. Census and California DOF population counts for the Town of Yucca Valley, the Town has experienced an average annual growth rate of 1.82 percent since 2000.

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number of jobs in Yucca Valley. However, despite these direct and indirect inducements of population growth, buildout of the proposed project would substantially improve the jobs-housing balance in the Town.

Jobs-Housing Balance

The following objective for the proposed project, found in Chapter 3, *Project Description*, identifies jobs-housing balance as one of the General Plan Update’s primary objectives:

- Improve the community’s jobs-housing balance and fiscal sustainability by planning for a diversified employment base provided by a variety of commercial, industrial, and mixed use land uses.

As noted above, full buildout of the proposed General Plan Update is not anticipated to occur in the near future, and it is unknown when full buildout may occur. However, this DEIR is tasked with determining the significance of impacts based on the maximum development potential allowed under the proposed project. Based on this standard, buildout of the proposed project would result in substantial population growth, but would also result in a dramatically improved jobs-housing balance. Table 5.11-8 compares the Town’s post-2035 buildout projections for population, households, and employment to SCAG projections. SCAG projects that the Town will be job-poor and housing-rich in 2035, with a jobs-housing ratio of approximately 2 to 1. The table shows that post-2035 buildout projections for population, household, and employment growth under the proposed project are substantially higher than 2035 estimates projected for the Town by SCAG. Growth consistent with post-2035 buildout projections would result in a jobs-housing ratio of 1.28, which means that all working adults that reside in the Town could hypothetically also work in the Town. This is a healthier job-housing ratio than both existing conditions and the ratio projected for 2035 by SCAG (0.48). Therefore, although buildout of the General Plan Update would occur far in the future and would substantially induce population, it would dramatically improve the Town’s balance of housing and jobs and would fulfill the General Plan Update objective identified above.

**Table 5.11-8
Comparison of SCAG 2035 Projections and Proposed Project Buildout Projections**

	Existing 2012 Conditions	SCAG Projections for the Town of Yucca Valley		Post-2035 Project Buildout
		2020	2035	
Population	21,282	23,000	26,200	64,565
Households ¹	8,985	9,900	11,800	25,868
Housing ²	9,458	10,421	12,421	27,229
Employment ³	7,539	5,100	6,000	34,926
Jobs-Housing Ratio	0.80	0.49	0.48	1.28

Source: SCAG 2012–2035 RP/SCS Growth Forecast (SCAG 2012).

¹ Existing and Post-2035 households estimated based on existing number of units and a vacancy rate of 5%, adjusted down from the 13% vacancy rate identified by the California Department of Finance (2012) to account for housing market improvements.

² Housing units in SCAG projections are estimated based on number of households and a vacancy rate of 5%.

³ Existing and general plan buildout (Post-2035) employment generation rates are estimated based on employees per building square footage and were developed by The Planning Center | DC&E.

Conclusion

The population, housing, and employment projections for buildout of the proposed project would substantially exceed SCAG’s growth forecasts for the Town of Yucca Valley. Implementation of the General Plan Update would directly induce substantial population growth in the area. However, the General Plan Update accommodates future

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growth within the Town by providing for infrastructure and public services to accommodate this projected growth (see Chapter 5.8, *Hydrology and Water Quality*, Chapter 5.12, *Public Services*, Chapter 5.15, *Transportation and Traffic*, and Chapter 5.17, *Utilities and Service Systems*). Furthermore, population growth would be offset by the level of employment growth required for the Town and would improve the Town's jobs-housing balance. Therefore, implementation of the proposed project would result in a less than significant impact relating to population growth.

IMPACT 5.11-2: BUILDOUT OF THE GENERAL PLAN UPDATE WOULD NOT RESULT IN THE DISPLACEMENT OF PEOPLE OR HOUSING. [THRESHOLD P-2 AND P-3]

Impact Analysis: The purpose of General Plan Update is to provide orderly growth in the Town of Yucca Valley through the distribution, location, balance, and extent of land uses. The Yucca Valley General Plan Land Use Element does not change land use designations from residential to nonresidential and thus would not result in the displacement of people or housing. Furthermore, the General Plan Update guides planning for new growth in the Town, in part through designation of land uses that result in additional housing. Examples of new opportunities for additional housing include the proposed application of mixed-use designations in areas of the Mid-Town and East Side focus areas and the application of higher-density residential designations in existing residential areas. The proposed land use map identifies land use designations for a variety of housing types and provides for additional residential opportunities in areas that currently do not allow residential uses. Furthermore, the housing element of the proposed General Plan includes numerous polices and implementation actions that, upon implementation, would ensure that a broad range of housing opportunities are offered in Yucca Valley. These include actions aimed at encouraging an expanded range of housing types (actions H 1-1 through H 1-8) and actions aimed at conserving existing dwelling units (actions H 4-1 through H 4-4). Therefore, impacts relating to displacement would be less than significant.

5.11.4 Relevant General Plan Policies

The following are relevant policies of the General Plan Update that are designed to reduce impacts to existing residences and businesses and to maintain, preserve, and improve the existing housing stock.

Housing Element

Housing Element Policies

Housing Diversity

- H 1-1 Provide a diversity of land uses to encourage residential development with a range of sizes, affordability levels, and amenities.
- H 1-2 Remove governmental constraints to the development of a variety of housing types, including affordable and multifamily housing.

Neighborhood Quality

- H 2-1 Revitalize the core of the community with new housing that capitalizes on existing and planned public facilities.
- H 2-2 Encourage new development and rehabilitation efforts to maximize energy efficiency through architectural and landscape design and the use of renewable resources and conservation.

Assisted Housing

- H 3-1 Support participation in federal, state, regional, and local programs aimed at providing housing opportunities for lower and moderate income households.

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- H 3-2 Collaborate with appropriate agencies and organizations to provide housing assistance to Yucca Valley residents.

Housing Conservation and Preservation

- H 4-1 Support the maintenance of the Town's deed-restricted affordable housing stock and relatively affordable development types such as mobile homes.
- H 4-2 Monitor and protect the Town's deed-restricted affordable housing stock.

Fair Housing

- H 5-1 Enforce fair housing laws prohibiting discrimination.
- H 5-2 Support local and regional organizations that provide fair housing services to Yucca Valley.
- H 5-3 Provide a supportive administrative environment that facilitates barrier free housing for disabled residents.

Housing Element Implementation Actions

Housing Diversity

- H 1-1 Maintain an inventory of all vacant land suitable for residential development to ensure adequate capacity to meet the Regional Housing Needs Assessment.
- H 1-2 Adopt the Corridor Residential Overlay, Mixed Use-Town Center, and Mixed Use-Civic Center land use designations in the General Plan and development standards in the Development Code to encourage and facilitate housing types up to 25 dwelling units per acre.
- H 1-3 Monitor building capacity of all sites within specific plans listed in the Land Inventory to help ensure that adequate lower income capacity is maintained throughout the planning period.
- H 1-4 Encourage housing types that address the housing needs of small, lower income households by continuing to permit second units by right in single-family detached residential-only zones and single room occupancy units through a conditional use permit in the Industrial zone.
- H 1-5 Continue to allow emergency shelters by right, with approval of a Special Use Permit, in the Industrial zone. Transitional and supportive housing shall be subject to only those restrictions that apply to other residential uses in the same zone. This is in accordance with Government Code Section 65583(a)(7).
- H 1-6 Provide technical assistance to facilitate lot consolidation in the Old Town Specific Plan area and seek opportunities to streamline the approval process.
- H 1-7 Encourage applicants of new multifamily and single-family attached projects to include units with two or more bedrooms to accommodate the housing needs of Yucca Valley families. Raise awareness of this need through pre-application meetings and through the Town's website.
- H 1-8 Require multifamily projects with 16 or more units to provide an on-site property manager, per Government Code Section 65582.2.

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Neighborhood Quality

- H 2-1 Concentrate higher density residential development opportunities in proximity to public transit, public facilities, the first phase of wastewater service, and commercial uses. This will create an accessible and convenient living environment for seniors, persons with disabilities, and lower income families.
- H 2-2 Encourage developers of affordable or age-restricted housing to confer with local public transportation providers to ensure adequate service to the project area as feasible.
- H 2-3 Update the Development Code to require that new housing projects, including affordable and age-restricted projects, have adequate public improvements, including infrastructure and paved streets and sidewalks.
- H 2-4 Provide local water and wastewater service providers with a copy of the Housing Element to inform them of local housing goals. Water and wastewater service for affordable housing projects is a priority, per Government Code Section 95589.7.
- H 2-6 Maintain a Planned Residential Development (PRD) permit ordinance which allows flexibility in development standards to encourage housing construction while preserving natural resources.
- H 2-7 Continue to enforce Town Codes on property development and maintenance. Use the Code Enforcement program as the primary tool for bringing substandard housing units into compliance and for improving overall housing conditions in Yucca Valley.

Assisted Housing

- H 3-1 Continue to seek additional financial resources, including Low Income Housing Tax Credits, for the construction of select deed-restricted affordable housing projects.
- H 3-2 Continue to update the Density Bonus Ordinance (when amended by the state) to incentivize affordable housing.
- H 3-3 Maintain membership in the San Bernardino County Urban County Consortium to participate in the County's efforts to obtain federal funding for affordable housing and community development.
- H 3-4 Coordinate with the San Bernardino County Housing Authority to ensure that Section 8 housing assistance, an important resource for lower income households, is provided in Yucca Valley.
- H 3-5 Assist qualified developers, nonprofit organizations, and agencies in the preparation of applications for county, state, and federal housing grants and loans for the construction of lower and moderate income housing in Yucca Valley. The Town shall process requests that require supportive documentation within 30 days of receipt.
- H 3-6 Distribute San Bernardino County lower and moderate income rental housing and homebuyer assistance program information at Town Hall and on the Town's website.

Housing Conservation and Preservation

- H 4-1 Facilitate the preservation of any deed-restricted affordable housing units by notifying the San Bernardino County Housing Authority and other qualified entities. The Town will be responsible for monitoring at-risk projects on an ongoing basis and will provide relevant information to tenants and the community as needed.

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- H 4-2 Continue to distribute the County of San Bernardino’s materials for developers and low income households which detail the programs available to both parties for assistance in the development and rehabilitation of low income housing. Materials will be available at Town Hall and online.
- H 4-3 Continue to regulate the conversion of mobile home parks to permanent housing by ordinance to ensure that an appropriate relocation plan for park residents is developed and implemented.
- H 4-4 Seek new funding sources to continue the Home Rehabilitation Program to enable lower income and senior households to maintain and rehabilitate their homes. Once funding has been secured, the program shall be advertised on the Town’s website and at Town Hall, the Community Center, the Library, and local churches and social service agencies.

Fair Housing

- H 5-1 Refer local fair housing complaints to the Inland Fair Housing Mediation Board, which provides landlord and tenant conflict resolution and other fair housing services.
- H 5-2 Continue to distribute fair housing information from the San Bernardino Housing Authority, Inland Fair Housing Mediation Board, San Bernardino County Community Housing Resource Board, or other appropriate agency, at Town Hall, other public facilities, religious institutions, and on the Town’s website.
- H 5-3 Continue reasonable accommodation procedures to accommodate modifications to, land use, zoning, and permitting processes to provide more housing options for people with disabilities.
- H 5-4 Continue to enforce the Fair Housing Act, which sets forth accessibility standards for multifamily projects with four or more units.

Land Use Element

Land Use Element Policies

Balanced Land Uses

- LU 1-6 Provide housing opportunities and a variety of residential densities, housing types and tenure to meet the affordability, life stage, and amenity needs of the Town’s diverse population.
- LU 1-15 Maintain Yucca Valley’s position as the economic hub of the Morongo Basin. Support a broad range of commercial retail, service, office, business park, research and development, light industrial, and industrial uses to provide employment opportunities and contribute to the Town’s economic sustainability.
- LU 1-22 Attract and retain non-polluting, clean industrial development that expands the economic opportunities in the Town.

Special Policy Areas

- LU 2-1 Stimulate reinvestment in the Town’s corridors by allowing greater flexibility in land use through the application of the provisions of the Special Policy Areas.
- LU 2-7 Facilitate the development of master planned industrial and business park uses.
- LU 2-8 Encourage large and tourist-serving retailers to locate along properties directly abutting SR-62 to capture sales from visitors entering and departing Joshua Tree National Park. (East Side SPA)

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- LU 2-13 Facilitate development vertical or horizontal mixed uses including commercial, office or residential. (Town Center SPA)
- LU 2-15 Permit infill uses consistent with the underlying uses as depicted on the General Plan “by right” and in accordance with the Development Code in place at the time of the land development application. (West Side SPA)

Land Use Element Implementation Actions

Balanced Land Uses

- LU 13 Coordinate with the Southern California Association of Governments and the Governor’s Office of Planning and Research to stay informed of legislation and documentation of the nexus between land use, housing, transportation, and sustainability.

Open Space and Conservation Element

Open Space and Conservation Element Policies

- OSC 11-3 Maintain General Plan Land Use, Housing, and Transportation goals and policies to be aligned with, support, and enhance SCAG’s Regional Transportation Plan and Sustainable Communities Strategy to achieve reductions in GHG emissions.

Open Space and Conservation Implementation Actions

Scenic Resources

- OSC 35 Consider establishing a density bonus program, providing density incentives for those projects which minimize and eliminate impacts to hillsides and ridgelines.

5.11.5 Existing Regulations and Standard Conditions

No regulations are applicable for population and housing.

5.11.6 Level of Significance Before Mitigation

Upon compliance with policies and programs included in the General Plan Update, Impact 5.11-1 and Impact 5.11-2 would be less than significant.

5.11.7 Mitigation Measures

No significant adverse impacts were identified and no mitigation measures are necessary.

5.11.8 Level of Significance After Mitigation

No significant adverse impacts were identified and no mitigation measures are necessary.

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5.11.9 References

- California Department of Finance (DOF). 2012a. Table E-1: City/County Population Estimates with Annual Percent Change. <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php>.
- . 2012b. Table E-5: Population and Housing Estimates for Cities, Counties, and the State, 2011 and 2012, with 2010 Benchmark. <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>.
- . 2012c. Table E-8: Historical Population and Housing Estimates for Cities, Counties, and the State, 2000–2010. <http://www.dof.ca.gov/research/demographic/reports/estimates/e-8/2000-10>.
- California Employment Development Department (EDD). 2012. Historical Labor Force & Employment Data for San Bernardino County. <http://www.labormarketinfo.edd.ca.gov/cgi/dataanalysis/areaselection.asp?tablename=labforce>.
- . 2013. Current Month Labor Force & Unemployment Data, Sub-County Places (Cities and Towns). <http://www.labormarketinfo.edd.ca.gov>.
- DataQuick Information Systems (DataQuick). 2013. California Home Sale Activity by City, Home Sales Recorded in the Year 2012. <http://www.dqnews.com/Charts/Annual-Charts/CA-City-Charts/ZIPCAR12.aspx>.
- Little Hoover Commission. 2031. Problems Surrounding California’s Housing Crisis factsheet. <http://www.lhc.ca.gov/lhc/house/JCHProblems.pdf>.
- Southern California Association of Governments (SCAG). 2012, April. 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Growth Forecasts. <http://www.scagntp.net/download>.
- . 2013. Local Housing Element Assistance: Existing Housing Needs Data Report. <http://rtpsc.scag.ca.gov/pages/viewReport.aspx>.
- United States Census Bureau (U.S. Census). 2011a. 2009–2011 American Community Survey 3 Year Estimates. <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>.
- . 2011b. 2007–2011 American Community Survey 5-Year Estimates. <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>.
- . 2011c. 2011 American Community Survey 1-Year Estimates <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>.

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5.12 PUBLIC SERVICES

This section addresses public services including: fire protection and emergency services, police protection, school services, and library services. Park services are addressed in Section 5.13, *Recreation*. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems are addressed in Section 5.15, *Utilities and Service Systems*.

The Initial Study, included as Appendix A, substantiates that all impacts associated with public services would be potentially significant and all impacts are discussed in the following analysis.

5.12.1 Fire Protection and Emergency Services

5.12.1.1 *Environmental Setting*

Provision of Services

Fire protection and emergency services in the Town of Yucca Valley are provided by the San Bernardino County Fire Department (SBCFD), Division 5. SBCFD provides fire suppression, inspection, fire safety, rescue and emergency response (emergency medical and paramedic ambulance transportation). SBCFD also monitors fire hazards in the Town and has ongoing programs for public education and the investigation and mitigation of hazardous situations. Fire-fighting resources in Yucca Valley include the fire stations listed in Table 5.12-1 and shown in Figure 5.12-1, *Public Facilities*. Stations 36, 41, and 42 provide year-round service, whereas Station 38 is only manned when necessary, typically during months where there is a high fire risk.

SBCFD Division 5 administration, operations, and community safety functions are located at 6942 Airway Avenue, Suite A, in Yucca Valley.



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Table 5.12-1
Fire Stations Serving the Town of Yucca Valley

Station	Service Area	Equipment and Personnel
Station 36 6715 Park Blvd Joshua Tree, CA 92252	Services Joshua Tree and surrounding areas; routinely assists the National Park Service, Twentynine Palms Fire, and the Marine Corps Fire Services	Equipment: 1 paramedic engine, 1 aerial ladder truck, and 1 hazardous materials response unit Personnel: Daily staffing including 1 captain, 1 engineer, and 1 firefighter paramedic
Station 38 5380 Mountain View Lane Pioneertown, CA 92268	Services Pioneertown and surrounding areas	Equipment: 1 utility (SUV) vehicle with radios and basic life support medical gear Personnel: Paid call staffing
Station 41 57201 Twentynine Palms Highway Yucca Valley, CA 92284	Services the valley and southern portion of the Town, and responds to incidents as needed in Joshua Tree, Twentynine Palms, and Morongo Valley; assists CALFIRE with fire response in Joshua Tree National Park	Equipment: 1 paramedic engine, 1 brush engine, 2 paramedic ambulances, and 1 swift water rescue unit Personnel: Daily staffing including 1 captain, 1 engineer, 2 firefighter paramedic, and two limited term firefighter/ ambulance drivers The Type I engine and ambulances are regularly staffed. The brush engine and swift water unit are cross-staffed with the regular duty crew when necessary. Between the hours of 8AM and 8PM, the station is staffed with 6 people. At night, between 8PM and 8AM, the station is staffed with 4 people, with one of the ambulances taken out of service.
Station 42 58612 Aberdeen Road Yucca Valley, CA 92284	Services the Yucca Mesa area north of town and responds to incidents in Landers, Johnson Valley, Pioneertown, and Joshua Tree; assists CALFIRE on all State Responsibility Areas west of Highway 247	Equipment: 1 paramedic engine, 1 paramedic ambulance, 1 water tender, 1 light duty urban search and rescue unit, and 1 utility vehicle Personnel: Daily staffing including 1 captain, 1 engineer, 1 firefighter paramedic, and 1 limited term firefighter/ambulance driver The water tender and rescue unit are cross-staffed as needed by the regular crew. Also houses 1 Type I reserve engine and 2 reserve ambulances.

Source: Benfield 2013; Earth Consultants International 2012.

Response Activity

Response activity statistics for Stations 41 and 42 for the years 2009 to 2012 are summarized further in Table 5.12-2. The data shows that the number of calls received by the local fire department has increased from one year to the next, at an average rate of just fewer than 4 percent per year, roughly consistent with the population growth during the same time period. Only about 2.5 percent of incident calls received by Fire Stations 41 and 42 between 2009 and 2012 were for fires.

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Table 5.12-2
Response Statistics for Yucca Valley Fire Stations for Fiscal Years 2009 to 2012

Year	Fires	Medical Calls	Other*	Total Calls
Station 41				
2009–2010	74	2,664	657	3,395
2010–2011	56	2,662	737	3,455
2011–2012	69	2,828	764	3,661
Station 42				
2009–2010	22	711	215	948
2010–2011	31	704	231	966
2011–2012	36	736	252	1,024

Source: Earth Consultants International 2012.

Note: These statistics are for two stations only and limited to calls within the Town of Yucca Valley.

* Other calls include downed power lines, false alarms, smoke investigations, carbon dioxide and smoke alarm investigations, etc.

Response Times

The National Fire Protection Association (NFPA Standard 1710, 2010) recommends the following objectives for fire departments:

- An alarm answering time of not more than 15 seconds for at least 95 percent of the alarms received, and not more than 40 seconds for at least 99 percent of the alarms received;
- When the alarm is received at a public safety answering point (PSAP) and transferred to a secondary answering point (or communication center), the agency responsible for the PSAP should have an alarm transfer time of not more than 30 seconds for at least 95 percent of all alarms processed;
- The responding fire department should have an alarm processing time (the time interval from when the alarm is acknowledged at the communication center until response information begins to be transmitted via voice or electronic means to emergency response facilities and emergency response units) of not more than 60 seconds for at least 90 percent of the alarms, and not more than 90 seconds for at least 99 percent of the alarms;
- Turnout time for fire and special operations of 80 seconds, and turnout time for Emergency Medical Service (EMS) response of 60 seconds;
- Travel time of 240 seconds (4 minutes) or less for the arrival of the first arriving engine company at a fire suppression incident and 480 seconds (6 minutes) or less travel time for the deployment of an initial full alarm assignment at a fire suppression incident;
- Travel time of 240 seconds (4 minutes) or less for the arrival of a unit with first responder with automatic external defibrillator (AED) or higher level capability at an emergency medical incident;
- Travel time of 480 seconds (6 minutes) or less for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department, provided that a first responder with AED or basic life support unit arrived in 240 seconds (4 minutes) or less travel time.



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According to the SBCFD, the average response time for Station 41 is currently 6 minutes, 3 seconds. The average response time for Station 42 is currently 9 minutes, 4 seconds (Benfield 2013). These statistics reflect calls generated only within the town limits. The response time begins when a station receives an alert and ends when the fire unit arrives on scene. This time includes receiving the call, donning personal safety gear as required, and driving to the incident. Safety rules and seat belt laws prohibit personnel from donning safety gear while en route to an incident. Station 42 services an extremely large area. As a result, response times can actually take 20 minutes or more because of the distance from the fire station to the incident (Earth Consultants International 2012). In addition to the large response area serviced by the Fire Department, response times in the Town of Yucca Valley can be impacted by a number of conditions. The most significant of these include congestion on Highway 62 during the late afternoons and early evenings, and the numerous unpaved (dirt) roads that limit driving speeds. Weather can also impact response times. Some of the Town's roads are prone to flooding during storms. For example, Yucca Mesa Road and Old Woman Springs Road are the main arteries providing connection between the areas serviced by Station 42 (in northern Yucca Valley) and Station 41 (southern Yucca Valley). However, the intersection of Yucca Mesa Road and Barron Drive is typically closed due to flooding during storms, forcing all traffic between the two areas onto Old Woman Springs Road. Deep snow at higher elevations during the winter can also hinder or slow down emergency response.

Staffing and equipment levels are currently below optimum given the number of calls generated within the Town. The recent economic/fiscal crisis has affected SBCFD drastically and has resulted in reductions in staffing and equipment (Benfield 2013).

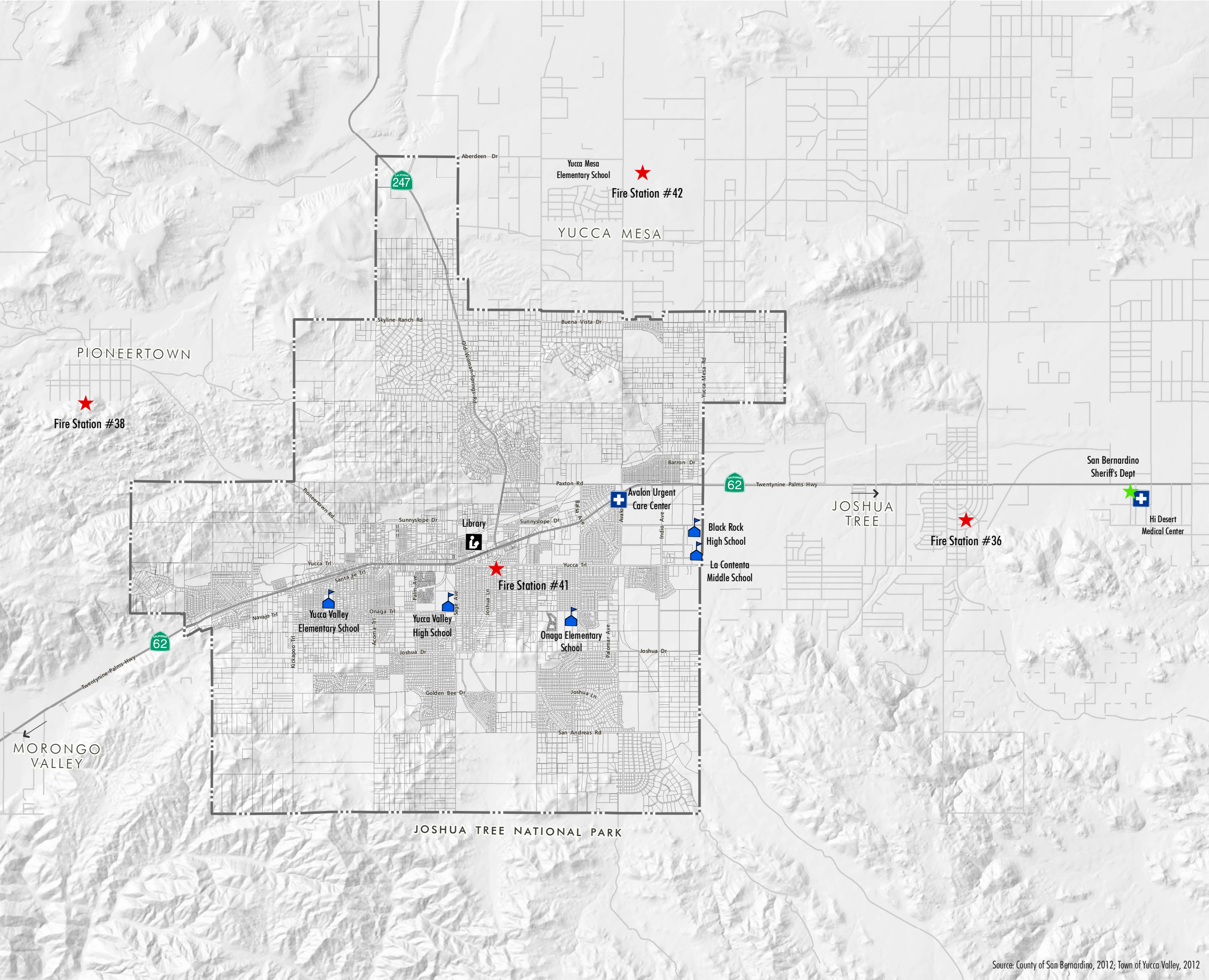
Automatic and Mutual Aid Agreements







Although Stations 41 and 42 are tasked with the responsibility of fire prevention and fire suppression in Yucca Valley, in reality, fire-fighting agencies team up and work together during emergencies. These teaming arrangements are handled through automatic and mutual aid agreements, which obligate fire departments to help each other under predefined circumstances. Automatic aid agreements require the nearest fire company to respond to a fire regardless of the jurisdiction. Mutual aid agreements obligate fire department resources to respond outside of their district upon request for assistance.

The Town of Yucca Valley is one of 24 cities and towns that are part of the San Bernardino County Operational Area. The operational area is part of the Standardized Emergency Management System, which promotes effective disaster management, response, and cooperation across jurisdictional boundaries. As a result of being part of an operational area group, all of the jurisdictions have mutual aid agreements that allow them to obtain additional emergency resources as needed from nonaffected members in the group. Given their geographic locations, the fire stations in Joshua Tree and Landers (County Stations 36 and 19, respectively) are the first responders to mutual aid requests from the Town of Yucca Valley. Furthermore, each of these cities is signatory to a joint powers agreement that provides for the joint use and operation of machinery, equipment, vehicles, and personnel in the event of a fire, disturbance, or other local emergency that cannot be met solely by the requesting city or jurisdiction. The automatic aid agreements provide for automatic dispatch of surrounding agencies when needed to replace units that are already responding to other calls (multiple alarms), in areas where two or more agencies border each other, or when the call type requires more units than the local area can provide. Mutual aid calls for units over and above what a first alarm assignments provide, generally on large incidents (like a fire in a large shopping center or apartment complex). In both automatic aid and mutual aid agreements, fire units are provided free of charge for the first 12 hours. After 12 hours, the agency with jurisdiction reimburses the assisting agencies for their costs.

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Figure 5.12-1
PUBLIC FACILITIES



-  Library
-  Medical Center
-  School
-  San Bernardino Sheriff's Dept
-  Fire Station
-  Town Limits

Source: County of San Bernardino, 2012; Town of Yucca Valley, 2012

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SBCFD has automatic aid and mutual aid agreements with surrounding agencies, including Morongo Valley Fire, California Department of Forestry and Fire Prevention (CALFIRE), Bureau of Land Management (BLM), and National Park Service. SBCFD is currently in the process of establishing agreements with Twentynine Palms Fire Department and Twentynine Palms Marine Base Combat Center Fire Department (Benfield 2013). Numerous other agencies are available to assist the San Bernardino County Fire Department if needed. These include the San Bernardino County Sheriff's Office and California Highway Patrol, who, depending on the location of the incident, would provide support during evacuations and discourage people from traveling to the incident area to observe fire department operations, since this can hinder fire suppression and emergency response efforts. In addition to the agencies mentioned above, several other state and federal agencies have roles in fire hazard mitigation, response, and recovery, depending on the type of incident and its location. These agencies include the Office of Emergency Services, Office of Aviation Services, National Weather Service, the Department of the Interior, and in extreme cases, the Department of Defense. In forest and open areas, agencies that provide fire suppression services include the National Park Service, U.S. Forest Service, National Association of State Foresters, Fish and Wildlife Service, and the Department of Agriculture. Private companies and individuals may also be asked to provide assistance in some cases.

5.12.1.2 *Thresholds of Significance*

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- FP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

5.12.1.3 *Environmental Impacts*

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.14-1: *BUILDOUT IN ACCORDANCE WITH THE GENERAL PLAN UPDATE WOULD INTRODUCE NEW STRUCTURES, RESIDENTS, AND WORKERS INTO THE SAN BERNARDINO COUNTY FIRE DEPARTMENT'S SERVICE BOUNDARIES, INCREASING THE DEMAND FOR FIRE PROTECTION FACILITIES AND PERSONNEL. [THRESHOLD FP-1]*

Impact Analysis: Buildout of General Plan Update would result in an increased number of persons and businesses within the Town, thereby resulting in an increase in demand for fire services. Firefighter staffing needs are determined by the SBCFD by the number of calls and requests for fire services within the service area. However, SBCFD has indicated that staffing and equipment levels are currently below optimum for the number of calls generated within the Town. The SBCFD has also stated that additional fire stations with paramedic services in the southern and western areas of Yucca Valley are desired (Benfield 2013).

Under the General Plan Update, staffing levels for fire protection and emergency services in Yucca Valley would continue to be established by the SBCFD. Public safety in Yucca Valley, including fire protection and emergency services provided by the SBCFD, is paid for with county revenue generated by property taxes. Although there is no direct fiscal mechanism that ensures that funding for fire and emergency services would grow exactly proportional to an increased need for services resulting from population growth in the Town, property taxes would be expected to grow roughly proportion to any increase in residential units and/or businesses in Yucca Valley.

Furthermore, polices and implementation programs in the proposed General Plan Update encourage periodic review of public safety services provided in Yucca Valley and require that fire and emergency services reflect the growing



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needs of residents. In particular, Policy S7-7 of the Safety Element requires that the Town coordinate with the SBCFD to ensure that adequate equipment, personnel, and services are provided as needed. Future increased need for fire services is also addressed in Implementation Action S 37, which requires that the Town analyze the possibility of establishing a Public Safety Assessment District to offset the costs of providing police and fire services to new development.

As the Town's population increases, additional fire stations may be required. Various localized environmental impacts related to construction of new fire stations would occur; however, since specific site locations have not been selected, it would be speculative to analyze these impacts as part of this first-tier Program EIR, other than to note that such impacts would likely fall within the envelope of construction impacts analyzed elsewhere in the EIR. Future environmental review would occur once specific locations have been determined. If an initial study is prepared and the Town determines the impacts to be significant, the project would be required to comply with project-specific mitigation measures, which for facilities as small as a fire station are likely to be successful in mitigating to less than significant.

The County would maintain appropriate firefighter staffing to ensure compliance with the National Fire Protection Association standards for response time and coverage, as discussed above. In addition, future projects would be reviewed by the Town of Yucca Valley and SBCFD on an individual basis and would be required to comply with requirements in effect at the time building permits are issued. Policies and programs in the proposed General Plan Update are designed to ensure collaboration between Town departments, SBCFD, and other involved agencies to achieve the Town's development goals in phases, working within the budget and infrastructure constraints of the Town. Following this process, sufficient revenue would be available for necessary service improvements to provide for adequate fire facilities, equipment, and personnel upon buildout of the General Plan Update. Impacts on fire services would be less than significant.

5.12.1.4 Relevant General Plan Policies and Implementation Actions

Land Use Element

Land Use Element Policies

- | | |
|---------|--|
| LU 1-1 | Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure. |
| LU 1-3 | Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development. |
| LU 1-26 | Seek opportunities to collaborate with other public/quasi-public organizations in an effort to build new facilities to meet demand or develop joint use facilities. |

Land Use Element Implementation Actions

- | | |
|-------|---|
| LU 12 | Annually revisit public facility priorities through the Capital Improvements Program and annual budget process. |
|-------|---|

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Safety Element

Safety Element Policies

- S 7-1 Provide an appropriate level of police and fire protection to preserve and protect the health, welfare, and property of residents and businesses in the Town of Yucca Valley.
- S 7-2 Require the San Bernardino County Sheriff and Fire Departments to evaluate new development plans and comment on their ability to provide services.
- S 7-4 Update and maintain the Emergency Operations Plan and Hazard Mitigation Plan keeping them current with county, state, and federal requirements, include measures pertaining to man-made and natural hazards such as flood, access, earthquakes, landslides, hazardous materials, evacuation, severe weather and fire.
- S 7-5 Establish emergency evacuation routes and adequate signage.
- S 7-6 Promote public and quasi-public education programs to enhance public safety.
- S 7-7 Coordinate with the San Bernardino County Fire and Sheriff's Departments and other appropriate agencies for the provision of adequate equipment and personnel, as well as expanded levels of service when needed.

Safety Element Implementation Actions

- S 30 Review and update the Emergency Operations Plan with local key staff members including medical, fire, police, etc. to ensure that the Town is adequately prepared for most likely and demanding emergency disasters.
- S 36 Communicate with the San Bernardino County Sheriff and Fire Departments to ensure an adequate level of service.
- S 37 Analyze the possibility of establishing a Public Safety Assessment District to offset the costs of providing police and fire services to new development.



5.12.1.5 Existing Regulations

State and Federal Regulations

- National Fire Protection Association Code 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

5.12.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impact would be less than significant: 5.14-1.

5.12.1.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

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5.12.1.8 Level of Significance After Mitigation

No significant adverse impacts were identified and no significant unavoidable impacts relating to fire protection and emergency services remain.

5.12.2 Police Protection

5.12.2.1 Environmental Setting

The San Bernardino County Sheriff's Department (SBCSD), through a contract with the Town, provides police protection in Yucca Valley. SBCSD's Morongo Basin substation at 63665 Twentynine Palms Highway serves as the area's regional headquarters for provision of police services. A satellite law enforcement facility is in the Yucca Valley Community Center.

SBCSD's performance standard for responding to emergency calls within its service area is under five minutes. The department's standard for nonemergency calls is 10 to 15 minutes. Current response times in Yucca Valley are 4.36 minutes for emergency calls and 13.33 minutes for nonemergency calls. Although the SBCSD's police protection resources are currently adequate to serve the Town under existing conditions, response times are increasing (Toms 2013). SBCSD does not have an adopted officers-per-capita performance standard. However, the industry standard is one officer per thousand residents. SBCSD current provides 0.6 officers per person in Yucca Valley.

5.12.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- PP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

5.12.2.3 Environmental Impacts

IMPACT 5.14-2: BUILDOUT IN ACCORDANCE WITH THE GENERAL PLAN UPDATE WOULD INTRODUCE NEW STRUCTURES, RESIDENTS, AND WORKERS INTO THE SAN BERNARDINO COUNTY SHERIFF'S DEPARTMENT SERVICE BOUNDARIES, INCREASING THE DEMAND FOR POLICE PROTECTION FACILITIES AND PERSONNEL. [THRESHOLD PP-1]

Impact Analysis: Buildout of the General Plan Update would result in an increase in demand for police protection services within the Town. New facilities, equipment, and personnel would be necessary to maintain adequate levels of service. At buildout, the Town is anticipated to result in a total of approximately 17,771 new residential units, 17,403,385 additional square feet of nonresidential space, 43,283 new residents, and 27,387 additional employees compared to existing conditions (see Table 3-2 in Chapter 3, *Project Description*, for complete buildout projections). In particular, the generation of population growth under the General Plan Update would substantially increase the demand for police protection services.

Yucca Valley's population upon buildout of the General Plan Update is projected to be approximately 64,565 people, based on the land use types and densities of the proposed land use plan (see Table 3-2 in Chapter 3, *Project Description*). In order for SBCSD to maintain its current ratio of 0.6 sworn officers per 1,000 residents, a population of 64,565 would require 39 sworn officers. This is more than double the number of officers currently provided by SBCSD in Yucca Valley. As a result, additional police equipment, facilities, and personnel would be required to provide

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adequate response times, acceptable public service ratios, and other performance objectives for law enforcement services.

Under the General Plan Update, staffing levels for police services in Yucca Valley would continue to be established by the SBCSD based on its contract with the Town. Public safety in Yucca Valley, including contract police protection services provided by the SBCSD, is paid for with funding from the Town's General Fund. Although the Town collects development impact fees per Chapter 3.40 of its Municipal Code, these fees are used to fund capital facilities and infrastructure projects and are not used to fund daily operation of public services. There is no direct fiscal mechanism that ensures that funding for police services would grow exactly proportional to an increased need for police services resulting from population growth in the Town. However, revenue sources that contribute to funding the Town's General Fund, including property and sales taxes, would be expected to grow in rough proportion to any increase in residential units and/or businesses in Yucca Valley.

Furthermore, polices and implementation programs in the proposed General Plan Update encourage periodic review of public safety services provided in Yucca Valley and require that police protection services reflect the growing needs of residents. In particular, Policy S7-7 of the Safety Element requires that the Town coordinate with the SBCSD to ensure that adequate equipment, personnel, and services are provided as needed. Future increased need for police services is also addressed in Implementation Action S 37, which requires that the Town analyze the possibility of establishing a Public Safety Assessment District to offset the costs of providing police and fire services to new development.

The SBCSD is currently able to meet the Town's police protection needs, but buildout of the General Plan Update would result in an impact on the SBCSD and their ability to deliver police services in a timely manner. Buildout of the General Plan Update would require the hiring of new staff and could potentially require the building of new facilities. Environmental impacts would result from the construction of new facilities. The physical impacts cannot be analyzed in this EIR because the locations and sizes of these facilities are unknown. Future projects would be reviewed by the Town of Yucca Valley on an individual basis and would be required to comply with regulations in effect at the time building permits are issued (i.e., payment of impact fees), or if an initial study is prepared and the Town determines the impacts to be significant, the project would be required to comply with project-specific mitigation measures. The need for additional structures and personnel would be financed through the Town's General Fund, and the impacts of General Plan Update on police services would be less than significant.



5.12.2.4 Relevant General Plan Policies and Implementation Actions

Land Use Element

Land Use Element Policies

- | | |
|---------|--|
| LU 1-1 | Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure. |
| LU 1-3 | Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development. |
| LU 1-26 | Seek opportunities to collaborate with other public/quasi-public organizations in an effort to build new facilities to meet demand or develop joint use facilities. |

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Land Use Element Implementation Actions

- LU 12 Annually revisit public facility priorities through the Capital Improvements Program and annual budget process.

Safety Element

Safety Element Policies

- S 7-1 Provide an appropriate level of police and fire protection to preserve and protect the health, welfare, and property of residents and businesses in the Town of Yucca Valley.
- S 7-2 Require the San Bernardino County Sheriff and Fire Departments to evaluate new development plans and comment on their ability to provide services.
- S 7-3 Encourage the evaluation of projects using Crime Prevention through Environmental Design (CPTED) design practices as a means of providing increased security in residential, commercial, and industrial development.
- S 7-4 Update and maintain the Emergency Operations Plan and Hazard Mitigation Plan keeping them current with county, state, and federal requirements, include measures pertaining to man-made and natural hazards such as flood, access, earthquakes, landslides, hazardous materials, evacuation, severe weather and fire.
- S 7-5 Establish emergency evacuation routes and adequate signage.
- S 7-6 Promote public and quasi-public education programs to enhance public safety.
- S 7-7 Coordinate with the San Bernardino County Fire and Sheriff's Departments and other appropriate agencies for the provision of adequate equipment and personnel, as well as expanded levels of service when needed.

Safety Element Implementation Actions

- S 30 Review and update the Emergency Operations Plan with local key staff members including medical, fire, police, etc. to ensure that the Town is adequately prepared for most likely and demanding emergency disasters.
- S 36 Communicate with the San Bernardino County Sheriff and Fire Departments to ensure an adequate level of service.
- S 37 Analyze the possibility of establishing a Public Safety Assessment District to offset the costs of providing police and fire services to new development.

5.12.2.5 Existing Regulations

No existing regulations apply.

5.12.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impact would be less than significant: 5.14-2.

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5.12.2.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.12.2.8 Level of Significance After Mitigation

No significant adverse impacts were identified and no significant unavoidable impacts relating to police protection services remain.

5.12.3 School Services

5.12.3.1 Environmental Setting

There are six public schools within Yucca Valley and numerous private schools.

Public Education Facilities

Morongo Unified School District (MUSD) currently serves over 9,700 students in grades K–12 from Yucca Valley, as well as Morongo Valley, Joshua Tree, and Twentynine Palms. MUSD currently operates 11 elementary schools, 2 middle schools, 2 high schools, 2 continuation high schools, 2 state preschool programs, and a special education preschool program. Yucca Valley’s public schools include 2 elementary schools, 1 middle school, 1 high school, and 1 continuation school:

- Yucca Valley Elementary School
- Onaga Elementary School
- La Contenta Middle School
- Yucca Valley High School
- Black Rock High School (formerly Sky Continuation High School)

Yucca Valley Elementary School has 24 classrooms on a 15-acre campus. Onaga Elementary has 42 classrooms and a 16.5-acre campus. Each elementary school is equipped with its own library and computer lab. La Contenta Middle School provides 24 permanent classrooms, 20 portable classrooms, 2 computer labs, a library, a cafeteria, and a multipurpose room on a 29-acre campus. The Yucca Valley High School campus includes 63 permanent classrooms, 18 portable classrooms, 6 computer labs, 4 science labs, and a library, cafeteria, gym, swimming pool, and football field on 38 acres. Black Rock High School is a continuation school that provides individualized education ultimately leading to a high school diploma. The schools listed above are shown in Figure 5.12-1, *Public Facilities*. Capacity and enrollment are detailed in Table 5.12-3



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**Table 5.12-3
Capacity and Enrollment of Schools Serving Yucca Valley**

School & Location	Capacity, Permanent Buildings	Capacity, Portable Buildings	Total Capacity	Current Enrollment	Remaining Capacity
Onaga Elementary School 58001 Onaga Trail	525	425	950	719	231
Yucca Mesa Elementary School 3380 Avalon Avenue	502	200	702	427	275
Yucca Valley Elementary School 7601 Hopi Trail	675	175	850	568	282
La Contenta Middle School 7050 La Contenta Road	725	425	1,150	765	385
Yucca Valley High School 7600 Sage Avenue	1,500	375	1,875	1,280	595
Black Rock High School 59273 Sunnyslope Drive	200	100	300	123	177
Total	4,127	1,700	5,827	3,882	1,945

Source: Smith 2013.

Alternative Education Programs

Private, charter, and home schooling are alternatives to the traditional education system in the area. MUSD runs an independent continuing education and home schooling program that provides supervision for both parent and child to ensure progress in the California standards-based curriculum. MUSD also oversees the only charter school in Yucca Valley. Hope Academy is a K–12 independent study charter school where students correspond with teachers by e-mail or phone and meet with them once a week. There are eight private schools in Yucca Valley. Joshua Springs Christian School is the largest Christian school in the Morongo Basin. The coed school serves over 300 students. Its 42-acre campus features a preschool, elementary school, junior high, and high school.

Bond Measure “O”

Bond Measure “O” was passed by voters in MUSD’s district boundaries in November 8, 2005. The measure approved a general obligation bond to repair and/or renovate schools in the MUSD service area in order to “improve student safety and relieve overcrowding” (MUSD 2013). Funds generated by the bond are used for:

- Repairing deteriorating/aging classrooms, restrooms, plumbing, electrical systems, and other campus facilities
- Making safety improvements for fire/health emergencies and security upgrades
- Renovating classrooms, science and computer labs, and technology centers
- Build and make improvements to school facilities

A citizens’ oversight committee regularly reviews expenditure of the bond’s proceeds.

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5.12.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- SS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services.

5.12.3.3 Environmental Impacts

IMPACT 5.14-3: BUILDOUT IN ACCORDANCE WITH THE GENERAL PLAN UPDATE WOULD GENERATE APPROXIMATELY 15,179 ADDITIONAL STUDENTS IN THE MORONGO UNIFIED SCHOOL DISTRICT. [THRESHOLD SS-1]

Impact Analysis: Buildout of the General Plan Update would allow up to 17,771 additional dwelling units in Yucca Valley. MUSD assesses its needs based on a student generation factor of 0.7 students per dwelling unit (Smith 2013) and charges developers accordingly. Table 5.12-4 calculates the approximate number of students that would be generated by dwelling units in Yucca Valley at buildout of the proposed project.

**Table 5.12-4
Student Generation at Buildout of the General Plan Update**

<i>Estimated Total Units at General Plan Buildout</i>	<i>MUSD Student Generation Rate (Students/Unit)</i>	<i>Estimated Students at General Plan Buildout</i>
27,229	0.7	19,061
	Existing Student Population	3,882
	Additional Students Generated by Proposed Project	15,179

Sources: Smith 2013.



Based on the MUSD’s student generation rate above, the student population in Yucca Valley at buildout would be approximately 19,061 students. The number of additional students generated by new dwelling units allowed under the General Plan Update—approximately 15,179 students—is above the current unused classroom capacity of 1,945 students shown in Table 5.12-3. Therefore, classroom capacity would need to be expanded to accommodate students generated by buildout of the General Plan Update.

The estimated numbers of new schools that would be needed to accommodate the net increase in student generation due to General Plan buildout is shown below in Table 5.12-5. The number of new classroom seats needed, 13,234, is the net increase in student generation, 15,179, less the number of existing unused school seats, 1,945. This estimate assumes that all additional students would be housed in new schools rather than expanded existing schools. Buildout of the General Plan Update would require approximately 13 new schools.

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**Table 5.12-5
New Schools Needed at General Plan Buildout**

	Elementary School (6 of 13 grades)	Middle School (3 of 13 grades)	High School (4 of 13 grades)	Total
Seats	6,108	3,054	4,504,072	13,234
Classrooms	244	122	151	517
Schools	8 Assuming 30 classrooms (750 students) capacity per school	3 Assuming 40 classrooms (1,080 students) capacity per school	2 Assuming 100 classrooms (2,700 students) capacity per school	13

Source: California Office of Public School Construction 2010.

Note: Classroom estimates based on the state loading standard of 25 students per classroom for grades K–6 and 27 students per classroom for grades 7–12.

It should be noted that, while MUSD assesses school needs based on a generation factor of 0.7 students per dwelling unit, this likely overestimates the number of students that would be generated at buildout of the General Plan Update. Based on the Town's existing number of dwelling units (9,458) and the current enrollment of 3,882 students in Yucca Valley schools, there are approximately 0.41 students per dwelling unit in the Town. When calculated by school level, there are approximately 0.18 elementary students, 0.08 middle school students, and 0.15 high school students per dwelling unit under existing conditions. A generation rate of 0.41 students per dwelling unit would result in 11,164 total students at buildout of the General Plan Update, considerably less than the 19,061 total students projected above using MUSD's student generation rate.

Development in Yucca Valley in accordance with the General Plan Update would require payments to the MUSD for the construction of new schools. Development impact fees charged by the MUSD are as follows:

- Residential: \$2.63/square foot
- Commercial/Industrial: \$0.42/square foot

Impact fees levied by MUSD are set within the limits of California Senate Bill 50 (SB 50). This funding program was established by the legislature to constitute "full and complete mitigation of the impacts" on the provision of adequate school facilities (Government Code § 65995[h]). SB 50 establishes two potential limits for school districts, depending on the availability of new school construction funding from the state and the particular needs of the individual school districts. MUSD qualifies for Level 1 developer fees, which are considered the base school mitigation fees, but charges less than the maximum allowed. To apply Level 1 fees, a district must justify its development fees for each land use and cannot request payment of development fees for school facility construction exceeding the amount of the statutory fees in Education Code Section 17620. If school districts conduct a school facility needs assessment and qualify for participation in the State Funding Program by the State Allocation Board, among meeting other requirements, they can be eligible for Level 2.

SB 50 also relieves jurisdictions from having the authority of denying approval of a legislative or adjudicative action under CEQA in reference to real estate development based upon the inadequacy of school facilities. Although the increased demand for school facilities would result in substantial impact, payment of impact fees in compliance with SB 50 would reduce the impacts to an acceptable level. The General Plan Update is meant to guide future development in the Town but it is not a development project. New dwelling units in the Town overall may generate 16,582 additional students, but the number of students that would be generated within the enrollment area of each school cannot be determined specifically at this point. Therefore, it would be speculative to analyze the impacts of future student generation on specific schools.

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Furthermore, implementation of policies and implementation actions included in the proposed General Plan would address the future adequacy of school services under the proposed project. Policy LU 1-3, in particular, requires new development projects to pay their fair share cost of, or make necessary improvements to, public services that face growth in demand from new dwelling units and businesses. Policy LU 1-26 states the Town’s commitment to working with other organizations and agencies to provide Yucca Valley residents with public facilities that meet local needs. Implementation Action LU11 implements this policy by ensuring that the Town and MUSD work together in their efforts to meet local demands for educational services.

Conclusion

Population growth in Yucca Valley under the General Plan Update would result in additional students in MUSD elementary, middle, and high schools. Although schools in Yucca Valley currently provide unused excess classroom capacity, the addition of 16,582 students in Yucca Valley would require expanded school services and new or expanded school facilities. Despite this increased need, payment of SB 50 development impact fees and expenditure of Bond Measure “O” funds would provide funding for the financing of new or expanded school facilities. Therefore, impacts on school services resulting from buildout of the General Plan Update would be less than significant.

5.12.3.4 Relevant General Plan Policies

Land Use Element

Land Use Element Policies

Balanced Land Uses

- LU 1-1 Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure.
- LU 1-3 Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development.
- LU 1-24 Plan for the adequate and logical expansion of public facilities that are compatible with surrounding land uses, reflect community character, are educationally enriching, and meet a broad range of local needs.
- LU 1-25 Support a variety of educational opportunities and foster a culture of life-long learning through libraries, museums, schools, and other institutions.
- LU 1-26 Seek opportunities to collaborate with other public/quasi-public organizations in an effort to build new facilities to meet demand or develop joint use facilities.

Land Use Element Implementation Actions

Balanced Land Uses

- LU 11 Periodically meet with MUSD representatives to assess the educational and recreational demands on Yucca Valley facilities and to determine if there are any opportunities to provide services that are of mutual benefit to the Town and school district.



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Existing Regulations

- California Government Code Chapter 4: *Zoning Regulations*, Section 65995, Payment of Fees, Charges, Dedications, or Other Requirements Against a Development Project
- MUSD SB 50 School Fees

5.12.3.5 *Level of Significance Before Mitigation*

Upon implementation of regulatory requirements, the following impact would be less than significant: 5.14-3.

5.12.3.6 *Mitigation Measures*

No significant impacts were identified and no mitigation measures are necessary.

5.12.3.7 *Level of Significance After Mitigation*

No significant adverse impacts were identified and no significant unavoidable impacts relating to school services remain.

5.12.4 Library Services

5.12.4.1 *Environmental Setting*

Library Services

Library services in Yucca Valley are provided by the Yucca Valley Branch Library, which is operated by the County of San Bernardino. As of 2013, the library has over 40,000 items in its collection and occupies an 8,250-square-foot space (Hernandez 2013). Library card holders have access to the county's entire collection of over 1 million items, including books, periodicals, governmental publications, videos and DVDs, CDs, maps, audiobooks, and e-books. Members can download audiobooks and e-books and reserve traditional reading materials through the system's website. In addition to media materials, the Yucca Valley Branch Library provides residents with 10 internet terminals, cultural performances, early childhood education programs, children's storytelling events, summer reading programs, adult book groups, computer and internet training, and job search assistance. The library receives support from Friends of the Yucca Valley Library, a nonprofit organization of volunteers who raise money to sponsor special events and programs, and purchase literary materials and technical equipment. A remodel of the library is planned for the near future (Hernandez 2013).

The San Bernardino County Library uses the California State Library's standard of 0.46 square foot per capita and 3.62 items per capita for determining library needs (Hernandez 2013). Based on these standards and the California Department of Finance (DOF) 2012 population estimate of 20,916, the Town currently requires approximately 9,621 square feet of library space and 75,716 items for materials.

5. Environmental Analysis

5.12.4.2 *Thresholds of Significance*

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- LS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services.

5.12.4.3 *Environmental Impacts*

IMPACT 5.14-4: BUILDOUT IN ACCORDANCE WITH THE GENERAL PLAN UPDATE WOULD GENERATE ADDITIONAL POPULATION IN YUCCA VALLEY, INCREASING THE NEED FOR LIBRARY SERVICES IN THE TOWN. [THRESHOLD LS-1]

Impact Analysis: At buildout, Yucca Valley is projected to have a population of approximately 64,565 residents. Using the San Bernardino County Library's standard service ratios, the Yucca Valley Library would need 29,700 square feet of library space and 233,725 volumes of material. Existing library space and materials, even with the planned renovation (Hernandez 2013), would not be adequate to serve the Town's approximately 43,283 additional residents, leaving a deficiency of 21,450 square feet and 193,725 volumes. However, residents of Yucca Valley, including future residents generated by land uses allowed under the proposed project, have access to all branches of the San Bernardino County Library system, including those within the neighboring communities of Joshua Tree and Twentynine Palms.

There is no direct fiscal mechanism that ensures that funding for library services would grow exactly proportional to an increased need for library services resulting from population growth in the Town. However, revenue sources that contribute to funding the county's general fund, including property and sales taxes, would be expected to grow in rough proportion to any increase in residential units and/or businesses in Yucca Valley. These tax revenues could be used to fund further expansion of the Yucca Valley Branch Library and/or additional materials and resources. Because a portion of property tax revenues collected by the county are specifically allocated for capital improvement and operating costs for the library system, future residents of the Town under the General Plan Update would be required to make a financial contribution to new or expanded library facilities.

Implementation of policies and implementation measures included in the proposed General Plan would address provision of library services under the proposed project. Policy LU 1-3 requires that new developments contribute public services or funding for services proportional to new demands generated by those developments. Policies LU 1-24 and LU 1-25 state the Town's goal to provide libraries and other public facilities that meet local needs, and Policy LU 1-26 states the Town's commitment to working with the county in efforts to provide adequate public services in the Town.

Localized environmental impacts would result from the construction of new library facilities. However, since the location and size of potential future facilities is unknown, it would be speculative to analyze the potential impacts of those facilities as part of this first-tier Program EIR, other than to note that such impacts would likely fall within the envelope of construction impacts analyzed elsewhere in this EIR. Future projects would be reviewed by the Town of Yucca Valley on an individual basis and would be required to comply with regulations in effect at the time building permits are issued. If an initial study is prepared and the Town determines the impacts to be significant, the project would be required to comply with project-specific mitigation measures.



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Conclusion

Buildout of the General Plan Update would result in an increase in demand for library services in Yucca Valley. New facilities, books, and personnel would be necessary to reach adequate levels of service. However, additional Town and county tax revenues generated from new dwelling units and businesses in Yucca Valley would contribute toward the financing of additional library space and services in the Town. Implementation of policies and implementation actions in the proposed General Plan would ensure that the Town and the San Bernardino County Library provide library services that meet local needs. Residents of the Town also have access to the entirety of the county's library system and its materials. For all of the above reasons, buildout of the General Plan Update is not anticipated to have a significant impact on library services.

5.12.4.4 Relevant General Plan Policies

Land Use Element

Land Use Element Policies

Balanced Land Uses

- | | |
|---------|---|
| LU 1-1 | Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure. |
| LU 1-3 | Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development. |
| LU 1-24 | Plan for the adequate and logical expansion of public facilities that are compatible with surrounding land uses, reflect community character, are educationally enriching, and meet a broad range of local needs. |
| LU 1-25 | Support a variety of educational opportunities and foster a culture of life-long learning through libraries, museums, schools, and other institutions. |
| LU 1-26 | Seek opportunities to collaborate with other public/quasi-public organizations in an effort to build new facilities to meet demand or develop joint use facilities. |

Land Use Element Implementation Actions

Balanced Land Uses

- | | |
|-------|---|
| LU 12 | Annually revisit public facility priorities through the Capital Improvements Program and annual budget process. |
|-------|---|

5.12.4.5 Existing Regulations

No existing regulations apply.

5.12.4.6 Level of Significance Before Mitigation

No significant impacts relating to library services have been identified. All impacts relating to library services would be less than significant without mitigation.

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5.12.4.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.12.4.8 Level of Significance After Mitigation

No significant adverse impacts were identified and no significant unavoidable impacts relating to library services remain.

5.12.5 Resources

Benfield, Dave. 2013, March 19. Response to service questionnaire, San Bernardino County Fire Department.

California Office of Public School Construction. 2010, December. Existing School Building Capacity Instructions (Form SAB 50-02). http://www.documents.dgs.ca.gov/opsc/Forms/SAB_50-02.pdf.

Hernandez, Leonard. 2013, February 26. Response to service questionnaire, San Bernardino County Library.

Morongo Unified School District (MUSD). 2013. Safety and Overcrowding/Repair Measure. <http://www.morongousd.com/bond>

Smith, Ron. 2013, March 5. Response to service questionnaire, Morongo Unified School District.

Toms, Brad. 2013, February 22. Response to service questionnaire, San Bernardino Sheriff's Department.



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5.13 RECREATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the General Plan Update to impact recreation in the Town of Yucca Valley. The potential for adverse impacts on accessibility of recreational facilities to existing and proposed residential neighborhoods, and impacts resulting from the construction of additional recreational facilities is evaluated based on current facilities and their usage.

5.13.1 Environmental Setting

5.13.1.1 *Regulatory Setting*

State

Quimby Act

This act is state legislation that authorizes cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities (California Government Code 66477).

Town of Yucca Valley

Park Dedication and In-Lieu Fee Ordinance

Yucca Valley's Park Dedication and In-Lieu Fee Ordinance, adopted under the authority of the Subdivision Map Act and the Quimby Act, requires dedication of 5 acres per 1000 population or the payment of fair market value in-lieu fees when new residential development occurs within the Town limits (MIG 2008).

Parks & Recreation Master Plan

The Town of Yucca Valley Parks & Recreation Master Plan is based on the vision that recreation facilities and open space are important resources within the Town of Yucca Valley, enhancing community health, enriching the lives of residents, and contributing to a unique community identity and quality of life. The plan, updated in 2008, provides a road map for planning current and future community park facilities and is an implementation tool of the General Plan, providing strategies for addressing the General Plan's goals and policies.

5.13.1.2 *Existing Setting*

The Town of Yucca Valley manages a combination of Town-owned parkland, leased parkland, and land on patent from the U.S. Bureau of Land Management (BLM). Cumulatively, Yucca Valley's neighborhood parks, managed open space, and undeveloped parkland total 262 acres. Approximately 180 of these acres are designated public parks and open space (see Table 5.13-1), and 132 acres are currently used as such (see Table 4-1). Although Table 5.13-1 provides a detailed acreage summary of the Town's parks, the 132 acres identified in Table 4-1 are used in this section for determining the Town's compliance with parkland standards under existing conditions.

Local Parks

The locations of the Town's neighborhood, community, and regional parks are illustrated in Figure 5.13-1, *Parks and Recreational Trails*, and an inventory of existing parks is in Table 5.13-1. The Town's current inventory of park and recreational facilities is classified into six categories.



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RECREATION

- **Community Parks** are larger parks (15–40 acres) that are planned primarily to provide opportunities for organized activities and sports, although individual and family activities are also encouraged. Community parks can also provide indoor facilities to meet a wider range of recreation interests. Community parks serve a larger area and offer more facilities. As a result, they require more support facilities, such as parking, restrooms, and covered play areas. Community parks usually have sport fields or similar facilities as the central focus of the park. Their service area has roughly a 2- to 3-mile radius.
- **Neighborhood Parks** are designed primarily for nonsupervised, nonorganized recreation activities. They are generally small in size (3–15 acres) and serve people living within approximately one-half mile of the park. Since these parks are within walking and bicycling distance of most users, the activities they offer serve the entire neighborhood, including children. Typical facilities found in a neighborhood park include: playgrounds, picnic areas, trails, open grass areas for passive use, outdoor basketball courts, and multiuse open grass areas for practice field sports.
- **Natural Land/Open Spaces** provide passive recreational opportunities on unimproved land. Two parks totaling approximately 120 acres—North Park and South Park—are preserved as natural open space on land owned by the BLM and leased to the Town. North Park is in the foothills of the San Bernardino Mountains near the west end of the Town, and South Park is in the Little San Bernardino Mountains near the south Town boundary. This open space provides opportunities for hiking, bird watching, and enjoying panoramic views of the high desert and surrounding mountains.
- **Special Use Facilities** include community gardens, single-purpose sites used for a particular field sport, or sites occupied by recreation buildings.

Table 5.13-1
Existing Parks in Yucca Valley

<i>Name</i>	<i>Location</i>	<i>Facilities</i>	<i>Size (Acres)</i>
Community Parks			
Community Center Park	57090 Twentynine Palms Highway	<ul style="list-style-type: none"> • Large parking lot • Softball field with turf outfield • 2 sets of bleachers • 2 full lighted basketball courts • Covered group picnic shelter with 3 ADA tables and 4 non-ADA tables • 2 BBQs and 2 sinks • 1 non-ADA drinking fountain; • Lighted sand volleyball court • 9-element skate park • 2–5 & 5–12 accessible playgrounds • Swings • Turf multi-use open space • Family picnic shelter • 3 horseshoe pits • Dog waste stations • Restroom • Community center w/ meeting rooms; library; senior center • The site is also the location of the Town Hall, the Hi Desert Nature Museum, and a public safety substation 	20.0

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RECREATION

**Table 5.13-1
Existing Parks in Yucca Valley**

Name	Location	Facilities	Size (Acres)
Essig Park	Warren Vista Avenue north of Joshua Lane	<ul style="list-style-type: none"> • Dog park • Playground • Picnic shelter • Restroom • Parking lot 	7.0
Neighborhood Parks			
Machris Park	59100 Santa Barbara Drive	<ul style="list-style-type: none"> • 29 paved parking spaces • Restroom/concession building • Playground and swings • Fenced and lighted softball field with turf outfield • Group picnic shelter • Drinking fountains • Dog waste station • Community meeting room 	12.0
Jacobs Park	55680 Onaga Trail	<ul style="list-style-type: none"> • 18 paved parking spaces • Dirt T-ball fields with 2 backstops • Group picnic shelter with 3 ADA tables • 4 non-ADA picnic tables in open area • 2 BBQs • 1 ADA drinking fountain • Restroom building • 2-5 playground on sand base • 5-12 playground on sand base • 2 basketball half-courts • 4 fenced lighted tennis courts • Shuffle board court • Small meeting room 	5.0
Paradise Park	58938 Barron Drive	<ul style="list-style-type: none"> • 13 paved parking spaces • Security lighting • Basketball half-court • Picnic shelter with 2 tables • 2 BBQs • 4 permanent picnic tables • Restroom • Recreation building • Backstop with dirt T-ball field and 4 benches • 2-5 playground with partial ADA access • Swings • High/low drinking fountain 	5.0
Natural Land/Open Space			
South Park	End of Black Rock Canyon Road	<ul style="list-style-type: none"> • Trail head with 0.7-mile loop trail • 2 benches • 8 dirt parking spaces 	40.0
North Park	Near the terminus of Fairway Drive	<ul style="list-style-type: none"> • None 	80.0

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**Table 5.13-1
Existing Parks in Yucca Valley**

Name	Location	Facilities	Size (Acres)
Special Use Facilities			
Sunnyslope Park BMX Track	Sunnyslope Drive at Sage Avenue	<ul style="list-style-type: none"> • 30 dirt parking spaces • Fenced BMX track with bleachers, snack bar, and announcer booth 	11.0
Remembrance Park	SR- 62 at Yucca Trail and Apache Trail	<ul style="list-style-type: none"> • Pathway • Veterans memorial • Saber tooth tiger sculpture • Flagpole 	0.2
Total Acres			180.2

Source: MIG 2008; The Planning Center | DC&E.

Note: The total acreage of parks shown here is greater than that shown in the Existing Table 4-1, *Existing Land Use Summary*, because Table 4-1 does not count unimproved park acreage.

Other Local Recreational Facilities

In addition to the facilities offered by the Town of Yucca Valley, recreational facilities, activities, and programs are provided to local residents by federal and county agencies, Morongo Unified School District (MUSD), and nonprofit groups.

Morongo Unified School District

The MUSD owns and operates five schools in the Town of Yucca Valley, including a number of fields and specialized facilities that, in some cases, are made available for public use through policies set by the district. Although not counted toward the Town's required Quimby Act park acreage, public schools in the Town provide recreational opportunities that are utilized often by Town residents, including play equipment and playfields

Local Nonprofit Organizations

Three local nonprofit entities have developed recreational facilities within the Town: Boys & Girls Club of the Hi Desert; Brehm Youth Sports Park; and Pop Rauch Park. Additionally, a number of churches within the Town offer recreational facilities for public events and programs.

Regional Facilities

Open space in and around the Town of Yucca Valley includes natural landscapes that are essentially undeveloped, but suitable for passive or active recreational activities that do not require substantial facilities or improvements. This includes lands that are owned, leased, or otherwise controlled by the Town of Yucca Valley or some other public or nonprofit entity, and are made accessible to the public for recreation, nature preservation, education, viewshed, and other open space purposes. These other open spaces, particularly Joshua Tree National Park, afford important recreational opportunities to Town residents and visitors and are significant to the Town as a tourist attraction.

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Figure 5.13-1

PARKS AND RECREATIONAL TRAILS

PARKS

Walking Distance

1/4 Mile

1/2 Mile

Community Parks

- ★ 1. Essig Park
- ★ 2. Community Center Park

Neighborhood Parks

- ★ 3. Machris Park
- ★ 4. Jacobs Park
- ★ 5. Paradise Park

Natural Land/Open Space

- ★ 6. South Park
- ★ 7. North Park

Special Use Parks

- ★ 8. Sunnyslope Park BMX Track

OTHER OPEN SPACE AREAS

- ★ 9. Pop Rauch Park (Tri Valley Little League)
- ★ 10. Brehm Youth Park/ Boys and Girls Club
- ★ 11. Desert Christ Park (Desert Christ Park Foundation)
- ★ 12. Remembrance Park
- ★ 13. Blue Skies Country Club (Semi-Private)

PUBLIC SCHOOLS

- ★ 14. Yucca Valley Elementary School
- ★ 15. Onaga Elementary School
- ★ 16. La Contenta Middle School
- ★ 17. Yucca Valley High School
- ★ 18. Black Rock High School

TRAILS

Multi-Use Trails (Proposed)

Riding Trails (Proposed)

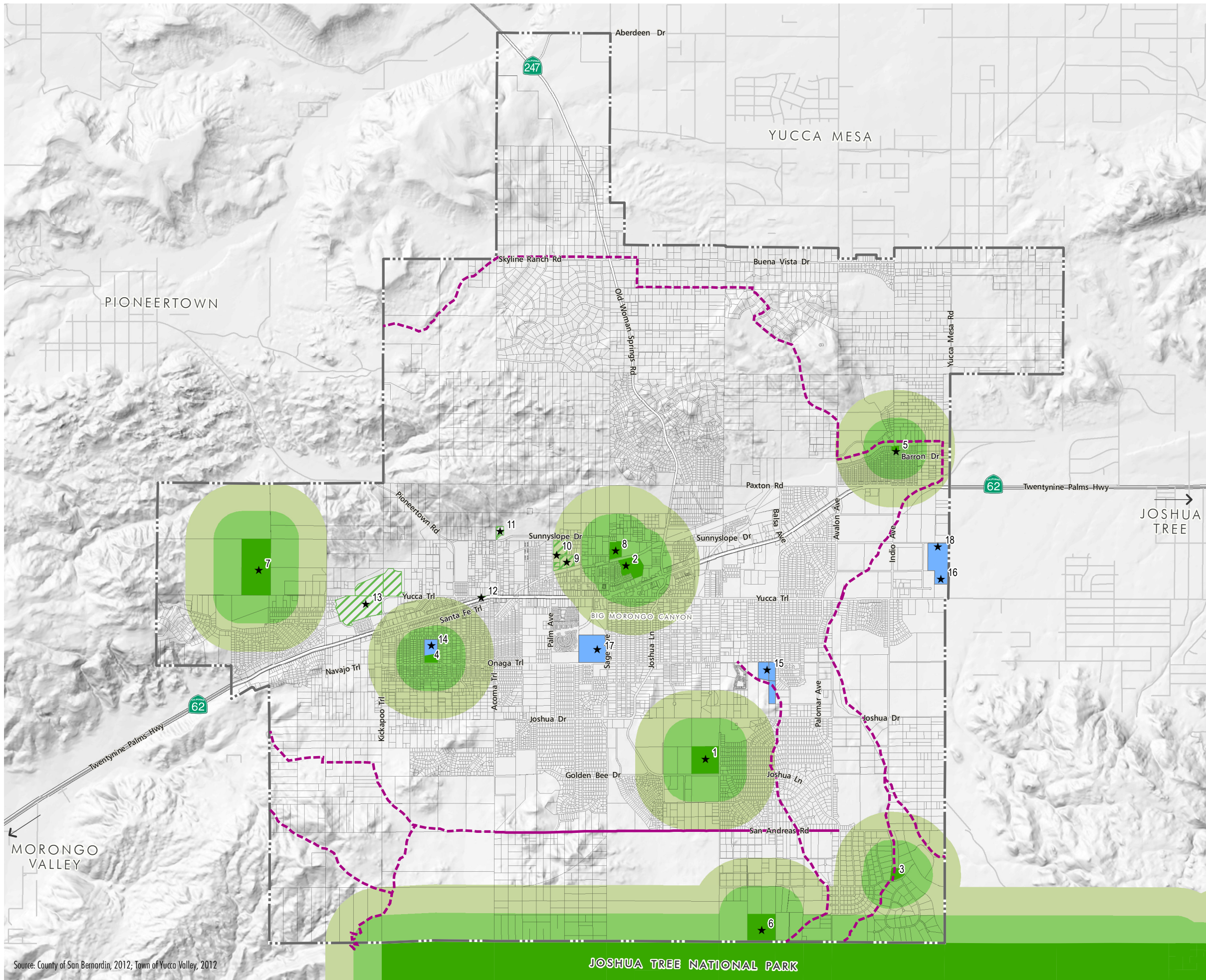
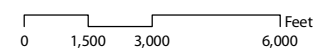
NOTE: Park locations identified on this map are generalized to show intended park locations based on need and land availability. Specific locations and acreage amounts shall be determined as part of future development proposals.



YUCCA VALLEY
GENERAL PLAN

DRAFT EIR

TYV-01 08.19.2013



Source: County of San Bernardin, 2012; Town of Yucca Valley, 2012

JOSHUA TREE NATIONAL PARK

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Joshua Tree National Park

Running along the southern boundary of the Town of Yucca Valley is the 794,000-acre Joshua Tree National Park, which boasts approximately 1.4 million visitors per year. Operated by the National Park Service, the park offers year-round interest for hikers, rock climbers, equestrians, campers, birders, photographers, biologists, naturalists, and fun seekers from around the world.

Johnson Valley OHV

Johnson Valley Off-Highway Vehicle (OHV) area is a tract of BLM-managed land set aside for recreational use by residents and off-highway enthusiasts. The OHV area is bordered by Interstate 40 at its northernmost point, at State Route 247's (SR-247) northern leg to Barstow at its western border, and at Emerson Dry Lake/US Marine Corps Air Ground Combat Center at its easternmost border. Expansion plans of the US Marine Corps AGCC Base include a plan to annex parts of OHV area that threatens to permanently close access to the tract.

5.13.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- R-1 Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- R-2 Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

5.13.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.13-1: THE PROPOSED PROJECT WOULD GENERATE ADDITIONAL RESIDENTS THAT WOULD INCREASE THE USE OF EXISTING PARK AND RECREATIONAL FACILITIES. [THRESHOLD R-1]

Impact Analysis: Under the Quimby Act, and pursuant to the Town's Park Dedication and In-Lieu Fee Ordinance, residential subdivisions must dedicate parkland or pay in-lieu fees to enable the Town to acquire a ratio of 5 acres of parkland per 1,000 residents. Based on the California Department of Finance (DOF) 2012 population estimate of 20,916, the Town currently requires 104.6 acres of parkland. The Town currently contains 132 acres of parkland (see Table 4-1) or 6.3 acres per 1,000 residents. Buildout of the General Plan Update would generate additional residents, increasing the demand for parks and increase existing park usage. Per the Park Dedication and In-Lieu Fee Ordinance and based on a projected General Plan Update buildout population of 64,565, a total of 322.8 acres of parkland would be required at buildout.

A proposed implementation measure (OSC 2) included in the Open Space and Conservation Element of the General Plan Update would decrease the Town's parkland requirement to three acres per 1,000 residents. Based on this updated policy, buildout of General Plan Update would result in a need for 193.7 acres of parkland at buildout.

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**Table 5.13-2
Required Parkland**

Scenario	Population	Standard	Required Parkland (Acres)	Provided Parkland (Acres)	Difference (Acres)
Existing Conditions					
Compliance with Existing Parkland Dedication and In-Lieu Fee Ordinance	20,916 (2012 Estimate)	5 acres/ 1,000 residents	104.6	132 ¹	27.4
Buildout of Proposed Project					
Compliance with Existing Parkland Dedication and In-Lieu Fee Ordinance	64,565	5 acres/ 1,000 residents	322.8	504 ²	181.2
Compliance with Proposed Implementation Measure OSC 2		3 acres/ 1,000 residents	193.7	504 ²	310.3

¹ Provided parkland acreage under existing conditions includes 26 acres currently used as "Parks and Open Space" and 106 acres currently used as "Open Space and Conservation." The total of 132 acres stated here differs from that in Table 5.13-1 (180.2 acres) because parks listed in that table include parks that are not currently used as parkland (e.g., North Park). Because land use data from Table 4-1, *Existing Land Use Summary*, better represents existing "on-the-ground" conditions in Yucca Valley, it is used for analysis in this chapter.

² Includes 118 acres designated for "Open Space – Recreation" and 386 acres designated for "Open Space – Conservation." See Table 3-2, *Proposed General Plan Land Use Designations and Buildout Projections*.

The extent to which the Town can plan and implement parks, trails, and other recreational facilities is related to the availability of funding. The Quimby Act is a funding mechanism for parkland acquisition. Under this act and pursuant to the Town's Municipal Code, residential subdivisions in Yucca Valley must dedicate parkland or pay in-lieu fees to enable the Town to acquire a ratio of 5 acres of parkland per 1,000 residents.

Based on future buildout projections for the General Plan Update and the Town's existing parkland standard, residents of Yucca Valley would require 322.8 acres of parkland. Although the Town's approximately 180 acres of existing parks (see Table 5.13-1) would not satisfy this need, there are over 500 acres of land designated for parks and open space in the proposed Land Use Plan. These include 118 acres designated for "Open Space – Recreation" and 386 acres designated for "Open Space – Conservation." Although much of the acreage designated for conservation uses is on steep terrain and unlikely to be developed into improved parks, it has the potential to provide Town residents with an expanded trail system and new passive recreational space. In addition to parkland accommodated by 500 acres of designated open space and new parks dedicated as part of new residential developments, there are other recreation amenities in and around Yucca Valley, such as Joshua Tree National Park, that would continue to provide residents of the Town with recreational amenities.

Policies in the General Plan Update address the need for and provision of parks and recreational amenities in Yucca Valley. Policy OSC 2-1 is a broad statement requiring the provision of parks relative to community needs. Implementation Action OSC 2 provides a new parkland land standard for the Town: 3 acres of parkland per 1,000 residents. The same implementation action also supports regular review and updating of the Parks & Recreation Master Plan, ensuring that the provision of parks keeps pace with demographic trends and the local recreational needs. Special topics relating to recreation opportunities are also addressed in the General Plan Update, including

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park funding (Implementation Actions OSC 3, 4, 6, and 8), and the provision of trails (Implementation Actions OSC 11 through 14).

Summary

The 504 acres designated for open space in the proposed Land Use Plan would accommodate the expansion and addition of recreational facilities in Yucca Valley proportional to population growth anticipated at buildout of the General Plan Update. In addition, as future development occurs in accordance with the General Plan, applicants are required to comply with the Town's park dedication and in-lieu fee program. Collected park fees would go toward acquiring parkland to meet the needs of additional residents and comply with the City's adopted parkland standard of 5 acres per 1,000 residents. As a result, under the General Plan Update, development of park facilities would keep pace with the anticipated increase in population and no significant impacts would occur.

IMPACT 5.13-2: PROJECT IMPLEMENTATION WOULD RESULT IN ENVIRONMENTAL IMPACTS FROM THE PROVISION OF NEW AND/OR EXPANDED RECREATIONAL FACILITIES. [THRESHOLD R-2]

Impact Analysis: The proposed General Plan Update guides growth and development within the town and is not a development project. However, the proposed land use plan includes 118 acres of land designated for Open Space Recreation (OSR), much of which is currently undeveloped. As the population of the town grows, portions of this undeveloped open space would be improved to provide residents with new recreational opportunities and to meet the City's adopted standard of 5 acres of parkland per 1,000 residents. Parks are also a permitted use under other land use designations, which could result in the development of recreational facilities outside of OSR-designated parcels.

Development of new or expanded recreational facilities may have an adverse physical effect on the environment, potentially including impacts relating to biological resources, lighting, noise, and traffic. Environmental impacts associated with the construction of new and/or expansion of existing recreational facilities in accordance with the proposed land use plan are addressed separately in Sections 5.1, *Aesthetics*; 5.3, *Biological Resources*; 5.10, *Noise*; and 5.14, *Transportation and Traffic*. However, it is speculative to identify the location and scale of proposed park facilities in the Town and impacts arising from development of individual park projects. The General Plan Update's goals, policies, and actions, in addition to existing federal, state, and local regulations, would mitigate potential adverse impacts to the environment that may result from buildout of the proposed land use plan, including expansion of parks, recreational facilities, and multiuse trails. Furthermore, subsequent environmental review would be required for development of park projects under the General Plan Update. Consequently, the General Plan Update would not result in significant impacts relating to the provision of new or expanded recreational facilities.

5.13.4 Relevant General Plan Policies and Implementation Actions

Land Use Element

Land Use Element Policies

Balanced Land Uses

LU 1-11 Encourage housing developments to include sites for recreational, open space, or educational uses.

Special Policy Areas

LU 2-12 Explore the possibility to integrate recreational opportunities into new development that could serve dually as buffers and new amenities for businesses in the SPA and residents in adjacent neighborhoods.

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Open Space and Conservation Element

Open Space and Conservation Element Policies

Natural Open Space and Parks

- OSC 1-1 Use flood control and utility easement areas to develop a multi-use trail system that links parks and recreational areas, commercial areas, residential areas, and other open space areas.
- OSC 1-2 Support regional, state, and federal efforts to evaluate, acquire, and conserve open space areas in and around Yucca Valley.
- OSC 1-3 Support the Mojave Desert Land Trust in their efforts to preserve open space resources within the Morongo Basin.
- OSC 1-4 Offer flexible development standards in exchange for providing open space and trail easements or rights-of-way.
- OSC 1-5 Encourage new development to retain natural open space areas as part of project design to the greatest extent practicable.
- OSC 1-6 Encourage the preservation, integrity, function, productivity and long term viability of environmentally sensitive habitats, wildlife corridors and significant geological features within the Town.
- OSC 2-1 Plan, develop, and maintain quality and adequate outdoor recreational and open space areas that utilize and enhance the unique aspects of the desert environment and provide amenities that are responsive to the needs of residents and visitors.
- OSC 2-2 Ensure that pedestrian facilities comply with Americans with Disabilities Act (ADA) requirements.
- OSC 2-3 Develop parklands in a manner that preserves the Town's natural resources to the greatest degree practicable.
- OSC 2-4 Locate new parks in or near residential areas relatively isolated from existing natural open space areas or community and neighborhood park facilities.
- OSC 2-5 Strengthen partnerships with the Morongo Unified School District for the joint use, maintenance, and development of school facilities for parks and recreational use.
- OSC 2-6 Site and maintain recreational facilities to meet the needs of all segments of the community including use for activities, relaxation and social interaction.

Recreational Trails

- OSC 3-1 Develop a recreational trail network for hiking, mountain biking and riding that links the Town's parkland, community facilities, and open space areas, and other amenities.
- OSC 3-2 Ensure new development provides adequate pedestrian, equestrian, and bicycle trail facilities to connect to the Town-wide recreational system.
- OSC 3-3 Design major drainage facilities, including debris basins and flood control washes and channels, to

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maximize their enhancement as multi-use community open space amenities, such as hiking and equestrian trails, consistent with the functional requirements of these facilities.

- OSC 3-4 Evaluate the location of existing and proposed trails and trailheads with proposed development and establish the appropriate easements to preserve those facilities.

Open Space and Conservation Element Implementation Actions

Natural Open Space and Parks

- OSC 1 Implement development regulations and guidelines that minimize or eliminate impacts of development on natural open space areas.
- OSC 2 Review the Parks and Recreation Master Plan and establish a list of priorities, action items and target completion dates to implement the highest priority items identified in the plan. The Plan should also be updated to reflect a minimum parkland objective of 3 acres per 1,000 residents, and identify a strategy to provide access to land locked passive park areas such as North Park.
- OSC 3 Implement a Capital Improvement Program to provide scheduled improvements needed for the park system to meet current and projected needs, ADA requirements, and to retrofit existing facilities using Crime Prevention through Environmental Design (CPTED) principles, based upon available financial resources.
- OSC 4 Pursue agreements with San Bernardino County to establish pass through parkland dedication and park in-lieu fees when residential development takes place within two (2) miles of Town boundaries.
- OSC 5 Adopt and implement flexible development standards to ensure provision of parkland dedication within residential development to satisfy the 3 ac/1,000 population park standard.
- OSC 6 Evaluate and utilize alternative available State, federal, and other funding sources to acquire and maintain recreational trail facilities; and pursue identified funding sources as they become available.
- OSC 7 Establish and/or revise, as needed, agreements with Morongo Unified School District, other agencies and community organizations that govern joint use of facilities to maximize availability and benefit to the community.
- OSC 8 Evaluate alternative revenue sources, and use other forms of park financing and acquisition methods, to fund the purchase, improvement, and maintenance of the Town park system.
- OSC 9 Update the Land Use Map when necessary to designate newly identified hazard zones as open space areas.
- OSC 10 Review development proposals adjacent to designated open space lands and assure that land uses are compatible, and buffers and/or linkages are provided when necessary to maintain natural resource value.

Recreational Trails

- OSC 11 Promote the development of pedestrian/multi-use/bike paths/lanes as an alternative mode of transportation to vehicular travel.
- OSC 12 Coordinate with local utility purveyors, County Flood Control District and other appropriate parties to

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- include the development of a multi-use trail system within easements and rights-of-way to the greatest extent possible.
- OSC 13 Review the Park Master Plan to assess the feasibility of trails and establish a priority list and associated implementation actions for Priority trails.
- OSC 14 Amend the Park Master Plan to include natural trails design standards for hiking, riding and mountain biking.

Biological Resources

- OSC 16 Establish standards and regulations in the Development Code which minimize impacts of new development on open space and conservation areas.
- OSC 17 Develop flexible development guidelines, standards, and regulations that encourage the provision of open space amenities within new development.
- OSC 20 Identify and assess lands, based upon site specific biological resources evaluations within the WCEAs and OSRAs that are suitable for preservation and may be preserved as public or private lands and as passive or active open space.

Safety Element

Flood Hazards

- S 3-2 Seek funding for local drainage improvements to provide flood control protection, preserve natural landform, and create passive and active recreational open space amenities.
- S 3-10 Coordinate with the San Bernardino County Flood Control District to enter into multi-use agreements within flood control facilities, allowing for safe, attractive recreational facilities while maintaining the function of the drainage facilities.

5.13.5 Existing Regulations

State and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

State and Federal Regulations

- Quimby Act (California Government Code 66477)
- Subdivision Map Act (California Government Code 66410)

Town of Yucca Valley Ordinances

- Park Dedication and In-Lieu Fee Ordinance
- Park Impact Fee Ordinance
- Amended Development Impact Fee Schedule Ordinance (Resolution No. 11-46)

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Town of Yucca Valley Municipal Code

- Title 11, Peace, Morals and Safety, Chapter 11.80: *Use of Park Facilities*, identifies uses and activities that are prohibited in Town parks and codifies their accessibility to all persons without regard to physical limitation, age, race, color, national origin, religion, political beliefs or gender.

5.13.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and compliance with policies contained within the General Plan Update, the following impacts would be less than significant: 5.13-1, and 5.13-2.

5.13.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.13.8 Level of Significance After Mitigation

Compliance with regulatory requirements identified above would reduce potential impacts relating to recreation to less than significant. Therefore, no significant unavoidable adverse impacts relating to recreation have been identified.

5.13.9 References

Moore Iacofano Goltsman Inc. (MIG). 2008, April. Town of Yucca Valley Parks & Recreation Master Plan Update. <http://www.yucca-valley.org/pdf/prmp/ackn.pdf>.

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5.14 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Town of Yucca Valley General Plan Update to result in transportation and traffic impacts in the Town of Yucca Valley. This section presents the existing transportation conditions in the Town, including the roadway network, bicycle and pedestrian network, transit network, aviation facilities, and current intersection and roadway segment operations. This section also discusses the methodology used to evaluate impacts. The analysis in this section is based in part on the following technical report:

- Town of Yucca Valley Traffic Study, Fehr and Peers, June 2013

A complete copy of this study is included in the Appendix H of this Draft EIR

5.14.1 Environmental Setting

5.14.1.1 *Regulatory Setting*

Vehicular Conditions

The traffic study analyzed the operation of the roadway system, including roadway segments and intersections. Operations for these facilities are expressed in terms of level of service (LOS), which is a general measure of traffic operating conditions where a letter grade, from LOS A (no congestion) to F (high levels of congestion), is assigned. LOS E represents “at capacity” operations. LOS qualitatively measures the operating conditions within a traffic system and how drivers and passengers perceive these conditions.

The flow of vehicles without significant impediments is considered “stable,” but when traffic encounters interference that limits the capacity acutely, the flow becomes “unstable.” These grades represent the perspective of drivers only and are an indication of the comfort and convenience associated with driving, as well as speed, travel time, traffic interruptions, and freedom to maneuver.

Roadway Levels of Service

A roadway operations analysis was performed at the study roadway segments to provide an evaluation of how the roadway network will perform. It also provides an idea of the amount of traffic that will utilize each roadway and if the existing or proposed lane configurations can adequately handle the volumes.

The levels of service for roadway segments were calculated for key roadway segments in Yucca Valley’s regional roadway system to evaluate existing traffic conditions. Daily capacity thresholds in accordance with the Town of Yucca Valley General Plan Circulation Element are shown in Table 5.14-1. This table establishes the maximum daily roadway capacities by street classifications. According to the Town’s General Plan criteria, LOS D is the maximum acceptable level of congestion on Town’s roadways on a daily basis.



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TRANSPORTATION AND TRAFFIC

Table 5.14-1
Maximum Daily Roadway Capacities

Classification	Typical Lane Configuration	Daily Volume Thresholds				
		LOS A	LOS B	LOS C	LOS D	LOS E
Unpaved Road	2 Lanes Undivided and Unpaved	-	-	-	500	-
Local Road	2 Lanes Undivided	-	-	-	1,500	2,000
Collector	2 Lanes Undivided	900	2,000	6,800	14,100	17,400
Industrial	2 Lanes Undivided	900	2,000	6,800	14,100	17,400
Arterial	2 Lanes Undivided	--	--	9,700	17,600	18,700
Arterial / Highway	4 Lanes Undivided	--	--	17,500	27,400	28,900
Arterial / Highway	4 Lanes Divided	--	--	19,200	35,400	37,400
Arterial / Highway	6 Lanes Divided	--	--	27,100	53,200	56,000

Source: Fehr and Peers 2013.

Intersection Levels of Service

Intersection operations are evaluated with the Synchro 6 level of service software, which is consistent with the methodologies identified in the *Highway Capacity Manual* (Transportation Research Board 2000). The level of service for roadway segments were calculated for key roadway segments in Yucca Valley's regional roadway system to evaluate existing traffic conditions. All study area intersections evaluated in the traffic study are signalized. Table 5.14-2 summarizes how the level of service corresponds to intersection delay at the signalized study intersections.

Table 5.14-2
Intersection LOS Criteria for Signalized Intersections

Level of Service	Description	Delay (seconds)
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	< 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	>10.0 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	>20.0 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	>35.0 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.	>55.0 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	>80.0

Source: Fehr and Peers 2013.

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TRANSPORTATION AND TRAFFIC

According to the Town's General Plan criteria, LOS D is the maximum acceptable level of congestion that should be maintained on Town's intersections on a daily basis.

Applicable Plans and Regulations

The regulatory framework is used to inform decision makers about the regulatory agencies/policies that affect transportation in the Town. This enables them to make informed decisions about planning improvements to transportation systems in the Town. Major policy documents impacting the transportation system in the Town of Yucca Valley include laws at the state level and planning documents at a regional level.

State

AB 1358 California Complete Streets Act

The California Complete Streets Act of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, Assembly Bill 1358 (AB 1358) required circulation elements to address the transportation system from a multimodal perspective. The bill 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." Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. For further clarity, AB 1358 tasks the Governor's Office of Planning and Research to release guidelines for compliance with this legislation by January 1, 2014.

Regional

San Bernardino County Congestion Management Program

The Congestion Management Program (CMP) defines a network of state highways and arterials, level of service standards and related procedures, and provides technical justification for the approach. The CMP for San Bernardino County was originally adopted in 1992 and updated most recently in 2007. For consistency with the CMP, CMP designated roadways in the Town (State Route 62 [SR-62] and State Route 247 [SR-247]) should operate at "the middle of LOS D or better." Additionally, during the CMP monitoring process, if any CMP facility is identified as operating at a deficient level, a deficiency plan would be required to restore operations back to an acceptable level.

San Bernardino County Non-Motorized Transportation Plan

SANBAG developed the Non-Motorized Transportation Plan (NMTP) in 2001, with the latest update in 2011. The plan is intended to be cohesive and integrated, with a comprehensive pedestrian and bicycle system. The 2011 update is also a response to California Senate Bill 375 (SB 375). The NMTP identifies several future facilities in Yucca Valley, as described in Impact Statement 5.14-4 in this section.

Local

General Plan Circulation Element

The Circulation Element addresses the movement of people and goods throughout the Town's transportation network. The Circulation Element for the existing General Plan was updated and adopted in 1995. It evaluates transportation circulation needs within the Town and recommends circulation improvements that would accommodate the future demand for transportation. The Town's LOS policy, as stated in the Adopted General Plan, is to maintain a citywide level of service (LOS) not exceeding LOS "D" for roadways and intersections during the peak hours.



5. Environmental Analysis

TRANSPORTATION AND TRAFFIC

5.14.1.2 Existing Setting

Existing Roadway Network

The Town of Yucca Valley is in San Bernardino County, approximately 30 miles north of Palm Springs, in the Mojave Desert. The Town of Yucca Valley's roadway system includes a range of facilities, including highways, arterials, collector streets, industrial streets, and local streets. Two major functions of a roadway are to serve through traffic and provide access to adjacent property. Different facilities are intended to serve these purposes differently. For instance, arterials generally prioritize the movement of traffic over access to individual properties, while local streets prioritize access to private properties over through traffic. Roadways are also intended to provide bicycle and pedestrian access and circulation and are the backbone of the bicycle and pedestrian network. SR-62 and SR 247 are the primary roadways providing regional accessibility to Yucca Valley. Figure 5.14-1, *Existing Lane Geometries*, identifies the Town's roadway network and existing lane geometries. Major regional facilities within the Town include:

- **State Route 62 (SR-62)**, also known as Twentynine Palms Highway, provides primary regional access to the town and the rest of the Morongo Basin, including Joshua Tree National Park, the Marine Corps Air Ground Combat Center, the Colorado River, and the Mojave Desert. SR-62 is currently classified as a highway within Town limits and serves as the main roadway through the Town. It runs east–west through the center of the Town and has two lanes in each direction, with a two-way left-turn lane.
- **State Route 247 (SR-247)**, also known as Old Woman Springs Road, is the second roadway providing regional access to Yucca Valley. Currently classified as a highway within Town limits, SR-247 is a north–south, undivided road with one to two travel lanes in each direction. SR-247 connects from the north to the center of town at SR-62, where it becomes Joshua Lane.

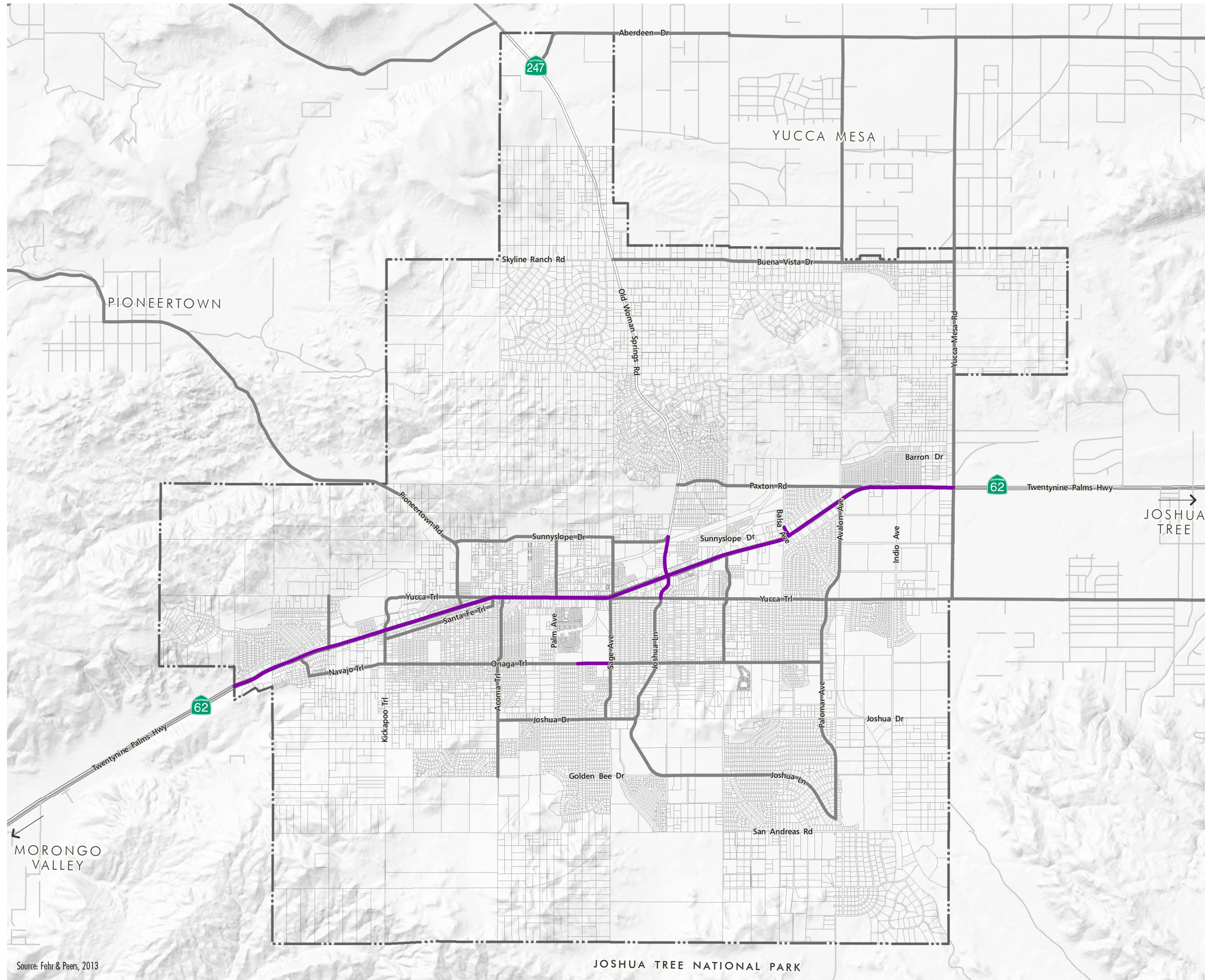
Major arterials within the Town include:

- **Joshua Lane** is currently classified as an arterial roadway that extends north–south in the Town of Yucca Valley. It becomes SR-247 north of SR-62. Between SR-62 and Yucca Trail, Joshua Lane is a divided 4-lane roadway with a two-way left-turn lane. This section of roadway has some discontinuous sidewalks. Between Yucca Trail and Onaga Trail, Joshua Lane is an undivided two-lane roadway with some discontinuous sidewalks. Joshua Lane is also designated a Class III bicycle route between Onaga Trail and Palomar Avenue, as discussed later in this report. The posted speed limit on Joshua Lane is 40 to 45 miles per hour.
- **Onaga Trail** between Kickapoo Trail and Palomar Avenue is an east–west roadway half a mile south of SR-62 and is currently classified an arterial roadway. This roadway contains discontinuous sidewalks. A bike route is designated throughout the length of Onaga Trail. The most developed section of Onaga Trail lies west of Sage Avenue adjacent to Yucca Valley High School. The posted speed limit on Onaga Trail is 40 to 45 miles per hour.
- **Yucca Trail** is currently classified an arterial roadway that extends east–west between SR-62 eastbound to the eastern town limits, where it becomes Alta Loma Drive. This roadway contains discontinuous sidewalks. Yucca Trail is designated a Class III bicycle route between Palomar Avenue and Yucca Mesa Road. The posted speed limit along Yucca Trail varies from 40 to 55 miles per hour.

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Figure 5.14-1
EXISTING LANE GEOMETRIES

-  4 Lane Road
-  All Other Roads: 2 Lane
-  Town Limits



Source: Fehr & Peers, 2013

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Major collector roadways within the Town include:

- **Sage Avenue** is currently as a collector roadway that extends from San Andreas Road north to Sunnyslope Drive. Sage Avenue is predominantly an undivided two-lane roadway with discontinuous sidewalks. The posted speed limit on Sage Avenue is 40 miles per hour.
- **Sunnyslope Drive** is a collector roadway that extends from Shawnee Trail east to SR-247. Sunnyslope Drive is an undivided two-lane roadway with no pedestrian facilities. It is a designated Class III bicycle route between Pioneertown Road and SR-247. The posted speed limit on Sage Avenue is 45 miles per hour.
- **Palomar Avenue/Avalon Avenue** is currently classified a collector roadway that extends from Joshua Lane north to Nelson Avenue, where it becomes Hacienda Drive. The roadway is named Palomar Avenue south of Lenox Avenue, and Avalon Avenue north of Lenox Avenue. South of Barron Drive, Palomar Avenue is a two-lane undivided roadway with no pedestrian facilities and a posted speed limit of 45 to 50 miles per hour. It is a designated Class III bicycle route between Joshua Lane and Yucca Trail.
- **Pioneertown Road** is currently classified a collector roadway that extends from SR-62 north to the unincorporated community of Pioneertown. Pioneertown Road is a two-lane undivided roadway with limited pedestrian facilities. It is a Class III bicycle route from the Town limits to Sunnyslope Drive. The posted speed limit along Pioneertown Road is 40 to 50 miles per hour. South of SR-62, Pioneertown Road turns into Deer Trail.
- **Acoma Trail** is currently classified a collector roadway that extends from Golden Bee Drive north to SR-62. Acoma Trail is a two-lane undivided roadway with limited pedestrian facilities. It is a Class III bicycle route between Onaga Trail and SR-62. The posted speed limit along Acoma Trail is 40 miles per hour.
- **Santa Fe Trail** is currently classified a collector roadway that extends from Kickapoo Trail east to Apache Trail. It is a two-lane undivided roadway with a posted speed limit of 35 miles per hour. There are no pedestrian facilities along Santa Fe Trail.
- **Joshua Drive** is currently classified a collector roadway that extends from Acoma Trail east to Joshua Lane. It is a two-lane undivided roadway with a posted speed limit of 45-50 miles per hour. There are no pedestrian facilities along Joshua Drive. There are other unconnected sections of Joshua Drive, including one section running east-west from Palomar Avenue, one section west of La Contenta Road, and various small sections west of Acoma Trail.
- **Paxton Road** is currently classified a collector roadway that extends from SR-247 east to Avalon Avenue. Paxton Road is a two-lane undivided roadway with no pedestrian facilities; it is a Class III bicycle route. The posted speed limit along Paxton Drive is 40 miles per hour.
- **Buena Vista Drive** is currently classified a collector roadway that extends from SR-247 east to Yucca Mesa Road. Buena Vista Drive is a two-lane undivided roadway without pedestrian facilities. The posted speed limit along Buena Vista Drive is 40 to 55 miles per hour.
- **Yucca Mesa Road** is currently classified a collector roadway that extends from SR-62 north to the Town's northern boundary. South of SR-62, Yucca Mesa Road is named La Contenta Road, which lies just east of the Town's eastern boundary. Yucca Mesa Road is a two-lane undivided roadway with no pedestrian facilities. It is classified a Class III bicycle route from Yucca Trail to Buena Vista Drive. Yucca Mesa Road has a posted speed limit of 55 miles per hour.



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- **Kickapoo Trail** is currently classified a collector roadway that extends from Hoopa Trail north to Yucca Trail. Kickapoo Trail, north of Navajo Trail, is a two-lane undivided roadway with discontinuous pedestrian facilities. Kickapoo Trail has a 40 mile per hour posted speed limit.

Exiting Traffic Conditions

Roadway Segments

The roadway segment volume to capacity (V/C) ratios are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet projected traffic demands. Average daily traffic (ADT) counts were obtained within the Town of Yucca Valley in 2011. The existing daily traffic volumes were used in conjunction with existing lane configurations to determine the current traffic operating conditions at the 50 existing study area roadway segments. Table 5.14-3 provides a summary of the base year conditions LOS. As shown below, all of the existing roadway segments currently operate at acceptable levels of service.

**Table 5.14-3
Existing Roadway Volume and LOS**

Street Name and Segment	Current Roadway Classification	Traffic Volume (ADT)	V/C	LOS
Acoma Trail				
South of SR-62	Collector	2,430	0.172	C or Better
North of Mountain View	Collector	2,357	0.167	C or Better
South of Joshua Drive	Collector	713	0.051	C or Better
Avalon Avenue				
North of Sunnyslope Drive	Collector	2,707	0.192	C or Better
North of SR-62	Collector	1,374	0.097	C or Better
Balsa Avenue				
North of Outer Highway	Collector	6,121	0.434	C or Better
South of SR-62	Collector	5,973	0.424	C or Better
Buena Vista Drive				
West of Yucca Mesa Road	Collector	2,332	0.165	C or Better
East of Balsa Avenue	Collector	3,469	0.246	C or Better
Between Roberts Road and Faith Lane	Collector	3,638	0.258	C or Better
Between Newton Lane and Rowell Road	Collector	3,643	0.258	C or Better
Camino del Cielo Trail				
North of SR-62	Collector	1,552	0.110	C or Better
Joshua Drive				
East of Acoma Trail	Collector	1,810	0.128	C or Better
West of Barberry Avenue	Collector	2,277	0.161	C or Better
East of Emerson Avenue	Collector	1,164	0.083	C or Better

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**Table 5.14-3
Existing Roadway Volume and LOS**

<i>Street Name and Segment</i>	<i>Current Roadway Classification</i>	<i>Traffic Volume (ADT)</i>	<i>V/C</i>	<i>LOS</i>
Joshua Lane				
South of Joshua Drive	Collector	4,311	0.306	C or Better
North of Onaga Trail	2-Lane Arterial	4,953	0.281	C or Better
North of Pueblo Trail	2-Lane Arterial	5,090	0.289	C or Better
Between Yucca Trail and SR-62 Outer Highway	2-Lane Arterial	7,022	0.399	C or Better
Kickapoo Trail				
South of SR-62	Collector	2,790	0.198	C or Better
La Contenta Road				
South of SR-62	Collector	2,230	0.158	C or Better
North of Yucca Trail	Collector	2,170	0.154	C or Better
Onaga Trail				
East of Alaba Avenue	Collector	1,782	0.126	C or Better
East of Elata Avenue	Collector	2,966	0.210	C or Better
West of Joshua Lane	2-Lane Arterial	3,734	0.212	C or Better
West of Sage Avenue	2-Lane Arterial	4,765	0.271	C or Better
East of Acoma Trail	2-Lane Arterial	3,544	0.201	C or Better
East of Elk Trail	2-Lane Arterial	3,017	0.171	C or Better
West of Jemez Trail	2-Lane Arterial	1,620	0.092	C or Better
Palm Avenue				
North of Pueblo Trail	Collector	1,207	0.086	C or Better
Palomar Avenue				
South of Yucca Trail	Collector	4,423	0.314	C or Better
North of Joshua Lane	Collector	836	0.059	C or Better
Paxton Road				
East of SR-247	Collector	1,522	0.108	C or Better
Pioneertown Road				
North of SR-62	Collector	2,238	0.159	C or Better
South of Town Limits	Collector	981	0.070	C or Better
Sage Avenue				
North of SR-62	Collector	2,142	0.152	C or Better
South of SR-62	Collector	4,341	0.308	C or Better
North of Onaga Trail	Collector	4,122	0.292	C or Better
Santa Fe Trail				
West of Cherokee Trail	Collector	730	0.052	C or Better



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**Table 5.14-3
Existing Roadway Volume and LOS**

Street Name and Segment	Current Roadway Classification	Traffic Volume (ADT)	V/C	LOS
East of Kickapoo Trail	Collector	505	0.036	C or Better
Sunnyslope Avenue				
West of SR-247	Collector	1,686	0.120	C or Better
Warren Vista Avenue				
South of SR-62	Collector	2,801	0.199	C or Better
Yucca Trail				
East of Cherokee Trail	Industrial	1,334	0.095	C or Better
East of Miami Trail	Industrial	1,921	0.136	C or Better
West of La Contenta Road	2-Lane Arterial	6,058	0.344	C or Better
East of Hanford Avenue	2-Lane Arterial	7,442	0.423	C or Better
West of Joshua View Drive	2-Lane Arterial	8,083	0.459	C or Better
West of Condalia Avenue	2-Lane Arterial	6,923	0.393	C or Better
Yucca Mesa Road				
North of SR-62	Collector	4,914	0.349	C or Better
North of Buena Vista Drive	Collector	2,733	0.194	C or Better

Source: Fehr and Peers 2013.

Notes:

LOS D Capacity for each roadway classification analyzed are as follows:

Collector – 14,100 vehicles per day (vpd)

Industrial – 14,100 vpd

2-Lane Arterial – 17,600 vpd

V/C = volume to capacity ratio.

Intersections

In addition, 10 signalized intersections along State Route 62 were evaluated. Table 5.14-4 presents the AM and PM peak hour LOS for all study area intersections for existing (2013) conditions. As previously described, LOS D is the maximum acceptable level of congestion at any intersection in Yucca Valley. As shown below, all of the intersections operate at an acceptable LOS D or better during the peak periods. Existing peak hour traffic volumes and intersection lane geometries are provided in Table 2-7 of the traffic study, and intersection LOS worksheet calculations are provided in Appendix C of the traffic study.

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**Table 5.14-4
Existing Conditions Intersection LOS**

Intersection	Control	AM Peak		PM Peak	
		Delay ¹	LOS	Delay ¹	LOS
1. SR-62 & Camino Del Cielo	Signal	6.8	A	6.9	A
2. SR-62 & Kickapoo Trail	Signal	12.4	B	9.9	A
3. SR-62 & Pioneertown Road/Deer Trail	Signal	10.4	B	12.8	B
4. SR-62 & Acoma Trail	Signal	9.8	A	10	A
5. SR-62 & Sage Avenue	Signal	18.7	B	20.3	C
6. SR-62 & SR-247	Signal	35.2	D	33.6	C
7. SR-62 & Airway Avenue	Signal	11.3	B	17.4	B
8. SR-62 & Balsa Avenue	Signal	11.8	B	17	B
9. SR-62 & Avalon Avenue	Signal	16.9	B	15.6	B
10. SR-62 & Yucca Mesa Road/La Contenta Road	Signal	14.6	B	14.9	B

Source: Fehr & Peers 2013

¹ Signalized intersection delay is reported as average delay.

Bicycle and Pedestrian Conditions

Bicycle facilities are typically defined by the following classifications:

- **Class I:** Bike path providing a completely separated right-of-way designated for the exclusive use of bicycles and pedestrians, with cross-flows by motorists minimized.
- **Class II:** Bikeway that provides a preferential right-of-way designated for the exclusive or semiexclusive use of bicycles, with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists minimized.
- **Class III:** Bikeways providing a route designation by signs or permanent pavement markings that are shared with either pedestrians or motorists.



The bicycle system in Yucca Valley includes on-street Class III bicycle routes that stretch along common arterials and collectors throughout the Town. The existing bicycle network allows for connectivity to and from the outskirts of the Town through mostly residential neighborhoods. However, Yucca Valley's central core around SR-62 has limited bicycle facilities to connect to main activity and business centers. These facilities are along paved roads and designated by signage only. Many Class III routes available in Yucca Valley are shared with vehicles on a narrow roadway with a dirt shoulder. An additional benefit to bike facilities is that other legal nonmotorized modes may use them as well. These other modes can include skateboards, skates, wheelchairs, and mobility scooters. Figure 5.14-2, *Existing Bicycle Facilities*, identifies existing bicycle facilities within the Town.

Pedestrian Facilities

Pedestrian facilities typically consist of sidewalks, pedestrian crossings (at intersections or mid-block), and off-street trails/paths. Currently, Yucca Valley's pedestrian system is limited with incomplete sidewalk facilities. Figure 15.4-3, *Existing Sidewalk Facilities*, provides an overview of existing sidewalks in Yucca Valley.

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Transit Facilities

Providing public transit has a number of benefits. It provides transportation for groups not having access to vehicles. It also helps groups who choose not to. Public transit also provides relief to a town's traffic network, because people who are not driving their individual vehicles on the road are not contributing to traffic congestion. Public transportation in Yucca Valley consists of the following services and facilities:

- **Public bus:** Public transportation in Yucca Valley is operated by Morongo Basin Transit Authority (MBTA), which enables commuters to travel within the Town and adjacent cities with minimal transfers. All transit routes within Yucca Valley have a transfer point at the Yucca Valley Transit Center near the intersection of Yucca Trail & Valley Vista. Currently, MBTA operates buses on five routes; Routes 1, 7A, 7B, 12/15, and 21.
- **Paratransit (Ready Ride):** Paratransit is an alternative mode of flexible passenger transportation that does not follow fixed routes or schedules. Typically, vans or minibuses are used to provide paratransit service, but share taxis and jitneys are also important providers. Desert Communities Transportation Services currently provides private nonemergency paratransit services. Additionally, MBTA offers discounted transit aboard MBTA buses with proof of disability through the program "Ready Ride."

Figure 5.14-4, *Existing Transit Network*, shows the existing transit routes in the Town. Transit service in Yucca Valley is described in detail in the traffic study.

Aviation Facilities

Yucca Valley is home to Yucca Valley Airport, a privately owned public use airport for private aircraft and aircraft maintenance and flight training. The closest airport offering commercial flights is the Palm Springs International Airport, approximately 30 miles south of Yucca Valley. MBTA routes 12 and 15 have a stop at the Palm Springs International Airport.

Truck Routes

The goods or freight movement system in Yucca Valley consists of designated truck routes. The Yucca Valley Municipal Code (Chapter 12, Section 30) defines weight restrictions, specifies the ability of trucks to enter areas not designated as truck routes, and defines the truck routes within the Town. Roadways in the system that are not designated truck routes are restricted to trucks under five tons only, with the exception of vehicles making pickups or deliveries within the Town limits. Figure 5.14-5, *Existing Truck Routes*, shows the existing truck routes in the Town.

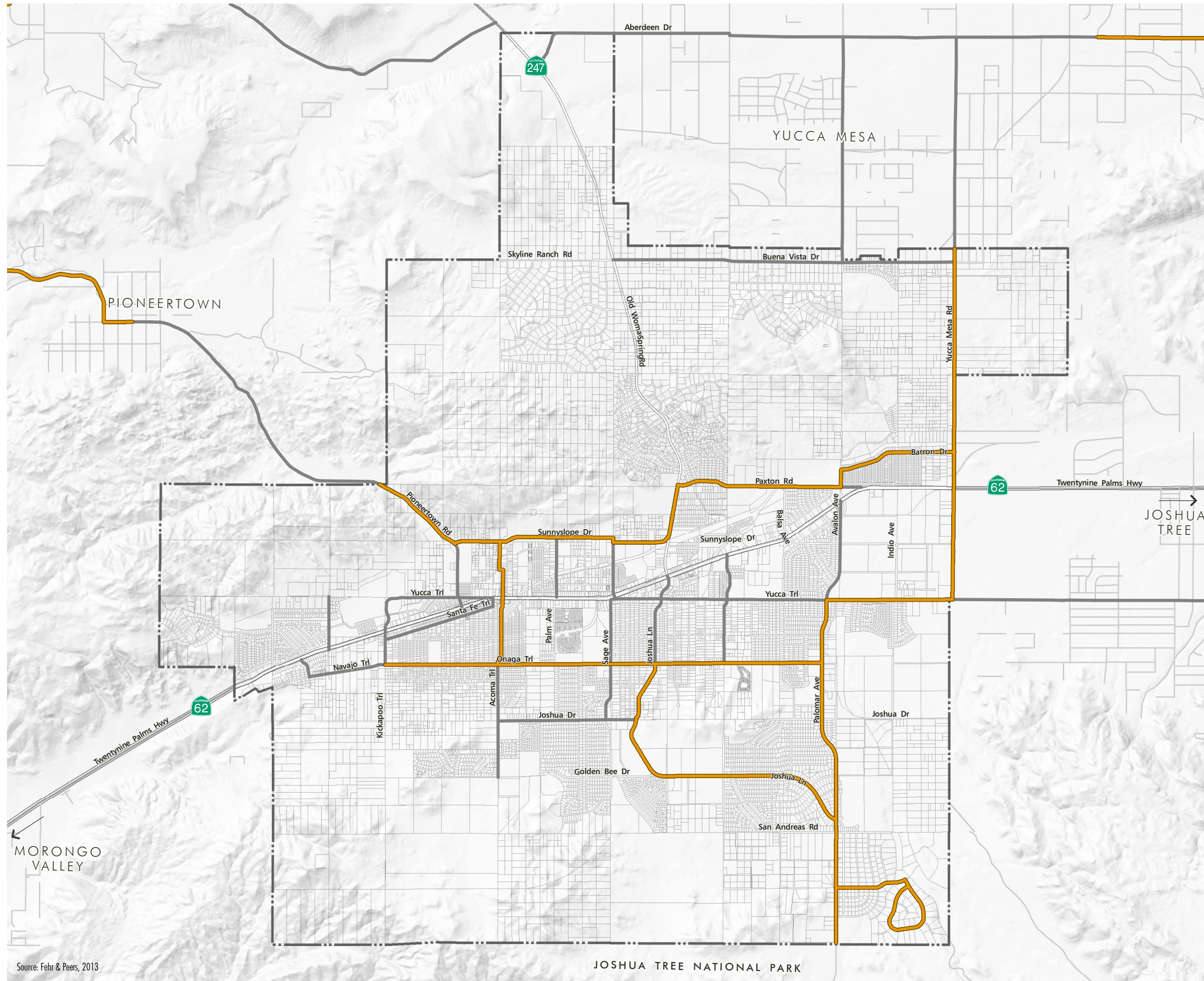
5.14.2 Thresholds of Significance



According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

- T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.
- T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

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Figure 5.14-2
EXISTING BICYCLE FACILITIES



-  Existing Class III Bike Route
-  Town Limits

Source: Fehr & Peers, 2013

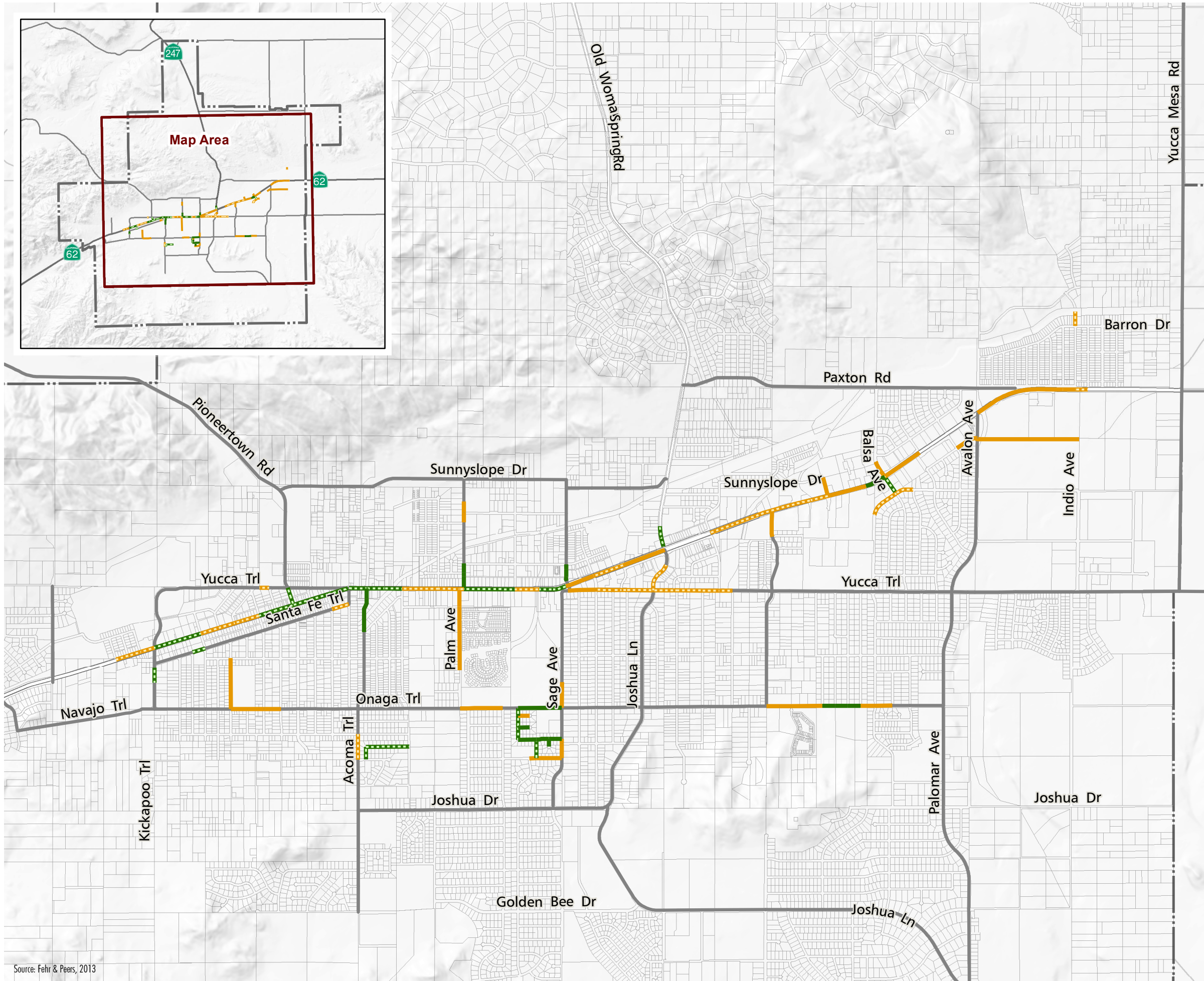
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Figure 5.14-3
EXISTING SIDEWALK FACILITIES



- Sidewalk on both sides of street
- - - Discontinuous sidewalk on both sides of street
- Sidewalk on one side of street
- - - Discontinuous sidewalk on one side of street
- Town Limits

Source: Fehr & Peers, 2013

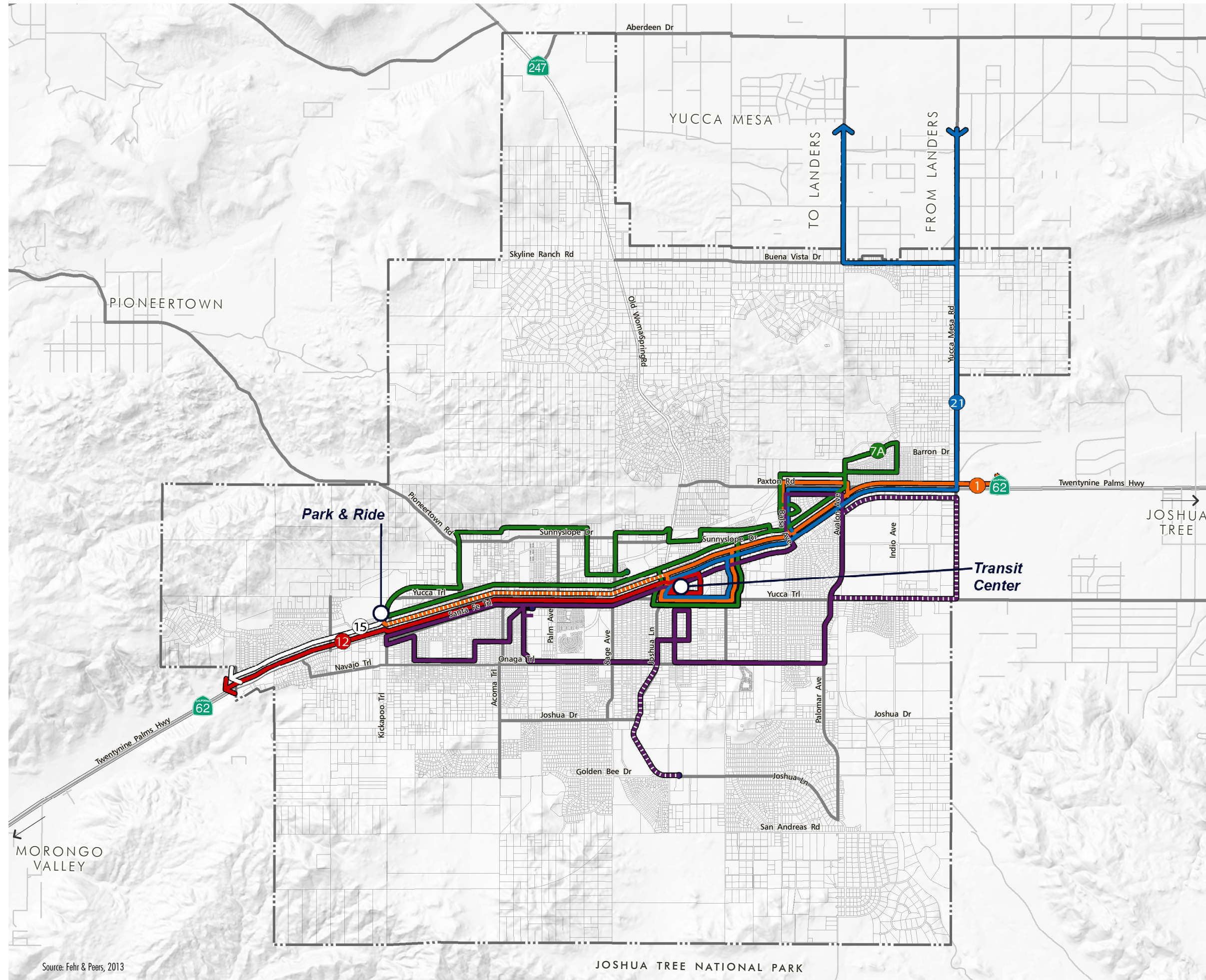
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Figure 5.14-4
EXISTING TRANSIT NETWORK



- Route 1
- Route 7A
- Route 7B
- Route 12
- Route 15
- Route 21
- Town Limits

Source: Fehr & Peers, 2013




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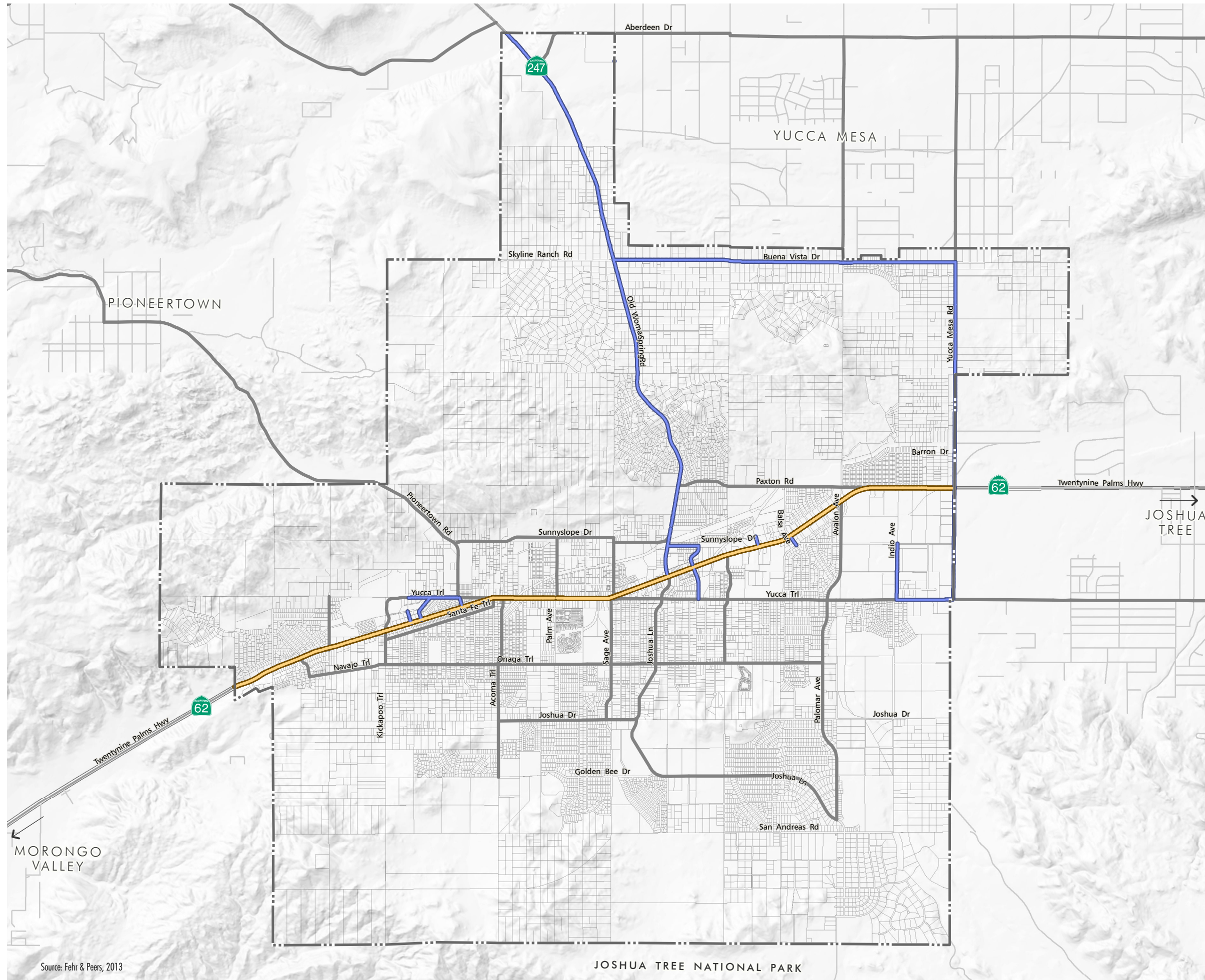
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Figure 5.14-5
EXISTING TRUCK ROUTES

-  Existing Truck Routes
-  STAA Route (Terminal Access)
-  Town Limits



Source: Fehr & Peers, 2013

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- T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- T-5 Result in inadequate emergency access.
- T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The Initial Study, included as Appendix B, substantiates that impacts associated with the following thresholds would be less than significant: T-3. This impact will not be addressed in the following analysis.

5.14.3 Environmental Impacts

Methodology

A detailed travel demand model was used to evaluate growth within the Town of Yucca Valley and the region. The San Bernardino Traffic Analysis Model (SBTAM) utilizes inputs such as land use, travel behavior, and roadway network characteristics (number of lanes, speed, etc.) to estimate traffic demand on area roadways. The model is calibrated specifically to evaluate San Bernardino County and meets state and federal guidelines for model calibration. The Yucca Valley Traffic Analysis Model was developed by modifying the SBTAM, which is a subregional model based on the Southern California Association of Governments' (SCAG) TransCAD model.

The SBTAM was used to develop long-range Post-2035 future traffic forecasts within the Town of Yucca Valley. Land use information for buildout of the Town was incorporated in the model's traffic analysis zones (TAZs) within the Town of Yucca Valley. Land uses for TAZs within the Town were modified according to population, employment, and households forecasts.

After the initial forecast was completed, suggested roadway improvements were incorporated into the network and final future year forecasts were generated. The future network assumptions incorporated into the travel demand model are consistent with the SCAG RTP-funded roadway projects list. SR-62 is planned to operate as a six lane facility. Other major roads are assumed to be improved and/or paved to provide more connectivity and capacity throughout the network, as shown on the Roadway Classifications map from the proposed General Plan Circulation Element, included as Figure 5.14-6, *Proposed Roadway System*. Specific roadway improvements that were assumed include:

- SR-62: 6 lanes through the Town Limits
- SR-247: 4 lanes north of SR-62 to the Town Limits
- Onaga Trail: 4 lanes from Camino del Cielo to Palomar Avenue
- Yucca Trail: 4 lanes from Sage Avenue to La Contenta Road/Yucca Mesa Road
- Balsa Avenue: 4 lanes from SR-62 to Sunnyslope Drive
- Indio Avenue: Extended from Sunnyslope Drive to Yucca Trail

The traffic modeling methodology is discussed in more detail in the Traffic Impact Study (see Section 3, Travel



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Demand Model Development).

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.14-1: PROJECT-RELATED TRIP GENERATION WOULD NOT CAUSE INTERSECTIONS AND ROADWAY SEGMENTS TO EXCEED THE TOWN'S LEVEL OF SERVICE "D" REQUIREMENTS. [THRESHOLD T-1]

Impact Analysis: For the purpose of the following analysis, it is important to note that the proposed General Plan is a regulatory document that lays down the framework for future growth and development and does not directly result in development in and of itself. Before any development can occur in the Town, all such development is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Roadway Segments Future Traffic Forecasts

The level of service was calculated for key roadway segments in Yucca Valley's regional roadway system to evaluate General Plan traffic conditions. According to the Town's recommended circulation policies, LOS D is the minimum acceptable level of congestion on a daily basis for any classified roadway within Yucca Valley. Table 5.14.5 shows the forecast traffic volumes, proposed general plan roadway classifications and respective level of service. As shown in this table, all of the roadways within the Town of Yucca Valley are forecast to operate at LOS D or better. Because the SR-62 and the SR-247 are key facilities and are monitored under the CMP program, traffic conditions on the SR-62 and SR-247 were evaluated in more detail at the intersection level, as discussed below.

**Table 5.14-5
Future Year (Post-2035) Roadway Volume and LOS**

Street Name and Segment	Proposed Roadway Classification	Traffic Volume (ADT)	V/C	LOS
Acoma Trail				
South of SR-62	2-Lane Arterial	3,530	0.201	C or Better
North of Mountain View	2-Lane Arterial	10,570	0.601	D
South of Joshua Drive	2-Lane Arterial	3,300	0.188	C or Better
Avalon Avenue				
North of Sunnyslope Drive	2-Lane Arterial	5,870	0.334	C or Better
North of SR-62	Collector	10,970	0.778	D
Balsa Avenue				
North of Outer Highway	4-Lane Arterial	11,640	0.329	C or Better
South of SR-62	4-Lane Arterial	23,400	0.661	C or Better
Buena Vista Drive				
West of Yucca Mesa Road	2-Lane Arterial	7,240	0.411	C or Better
East of Balsa Avenue	2-Lane Arterial	7,960	0.452	C or Better
Between Roberts Road and Faith Lane	2-Lane Arterial	10,350	0.588	D
Between Newton Lane and Rowell Road	2-Lane Arterial	13,520	0.768	D

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**Table 5.14-5
Future Year (Post-2035) Roadway Volume and LOS**

Street Name and Segment	Proposed Roadway Classification	Traffic Volume (ADT)	V/C	LOS
Camino del Cielo Trail				
North of SR-62	2-Lane Arterial	6,870	0.390	C or Better
Joshua Drive				
East of Acoma Trail	2-Lane Arterial	7,860	0.447	C or Better
West of Barberry Avenue	2-Lane Arterial	6,740	0.383	C or Better
East of Emerson Avenue	2-Lane Arterial	2,830	0.161	C or Better
Joshua Lane				
South of Joshua Drive	2-Lane Arterial	10,890	0.619	D
North of Onaga Trail	2-Lane Arterial	9,660	0.549	C or Better
North of Pueblo Trail	2-Lane Arterial	10,580	0.601	D
Between Yucca Trail and SR-62 Outer	2-Lane Arterial	14,070	0.799	D
Kickapoo Trail				
South of SR-62	2-Lane Arterial	6,620	0.376	C or Better
La Contenta Road				
South of SR-62	4-Lane Arterial	18,660	0.527	D
North of Yucca Trail	4-Lane Arterial	8,430	0.238	C or Better
Main Street (Proposed)				
East of Cherokee Trail	Collector	7,290	0.517	D
Onaga Trail				
East of Alaba Avenue	4-Lane Arterial, Divided	3,860	0.109	C or Better
East of Elata Avenue	4-Lane Arterial, Divided	6,290	0.178	C or Better
West of Joshua Lane	4-Lane Arterial, Divided	5,380	0.152	C or Better
West of Sage Avenue	4-Lane Arterial, Divided	6,540	0.185	C or Better
East of Acoma Trail	4-Lane Arterial, Divided	3,550	0.100	C or Better
East of Elk Trail	4-Lane Arterial, Divided	5,080	0.144	C or Better
West of Jemez Trail	4-Lane Arterial, Divided	4,370	0.123	C or Better
Palm Avenue				
North of Pueblo Trail	2-Lane Arterial	3,890	0.221	C or Better
Palomar Avenue				
South of Yucca Trail	2-Lane Arterial	14,720	0.836	D
North of Joshua Lane	2-Lane Arterial	5,080	0.289	C or Better
Paxton Road				
East of SR-247	2-Lane Arterial	8,810	0.501	C or Better
Pioneertown Road				
North of SR-62	2-Lane Arterial	9,120	0.518	C or Better
South of the Northern Town Limit	2-Lane Arterial	2,670	0.152	C or Better



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**Table 5.14-5
Future Year (Post-2035) Roadway Volume and LOS**

Street Name and Segment	Proposed Roadway Classification	Traffic Volume (ADT)	V/C	LOS
Sage Avenue				
North of SR-62	2-Lane Arterial	6,020	0.342	C or Better
South of SR-62	2-Lane Arterial	7,480	0.425	C or Better
North of Onaga Trail	2-Lane Arterial	7,720	0.439	C or Better
Santa Fe Trail				
West of Cherokee Trail	2-Lane Arterial	4,290	0.244	C or Better
East of Kickapoo Trail	2-Lane Arterial	1,660	0.094	C or Better
Sunnyslope Avenue				
West of SR-247	2-Lane Arterial	10,680	0.607	C or Better
Warren Vista Avenue				
South of SR-62	Collector	3,970	0.282	C or Better
Yucca Trail				
West of La Contenta Road	4-Lane Arterial, Divided	16,720	0.472	C or Better
East of Hanford Avenue	4-Lane Arterial, Divided	22,600	0.638	D
West of Joshua View Drive	4-Lane Arterial, Divided	16,070	0.454	C or Better
West of Condalia Avenue	4-Lane Arterial, Divided	14,470	0.409	C or Better
Yucca Mesa Road				
North of SR-62	2-Lane Arterial	10,280	0.584	C or Better
North of Buena Vista Drive	2-Lane Arterial	5,340	0.303	C or Better

Source: Fehr & Peers, 2013.

Notes:

LOS D capacity for each roadway classification is:

Collector – 14,100 vehicles per day (vpd)

Industrial – 14,100 vpd

2-Lane Arterial – 17,600 vpd

4-Lane Arterial – 35,400 vpd

V/C = volume to capacity ratio.

Intersections Future Traffic Forecasts

The level of service was calculated for key study intersections with the future intersection lane configurations to evaluate General Plan traffic conditions. As previously described, LOS D is the maximum acceptable level of congestion at any intersection in Yucca Valley.

Table summarizes the LOS results at the study intersections. The results of the intersection assessment indicate that all of the study intersections operate at the Town's LOS D target or better.

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**Table 5.14-6
Future Year (Post-2035) Conditions Intersection LOS**

Intersection	Control	AM Peak		PM Peak	
		Delay	LOS	Delay	LOS
1. SR-62 & Camino Del Cielo	Signal	13.8	B	23.8	C
2. SR-62 & Kickapoo Trail	Signal	10.1	B	34.9	C
3. SR-62 & Pioneertown Road/Deer Trail	Signal	16.4	B	34.2	C
4. SR-62 & Acoma Trail	Signal	12.3	B	22.6	C
5. SR-62 & Sage Avenue	Signal	26.1	C	38.3	D
6. SR-62 & SR-247	Signal	25.7	C	51.7	D
7. SR-62 & Airway Avenue	Signal	14.8	B	28.0	C
8. SR-62 & Balsa Avenue	Signal	15.4	B	27.6	C
9. SR-62 & Avalon Avenue	Signal	19.4	B	29.6	C
10. SR-62 & Yucca Mesa Road/La Contenta Road	Signal	24.8	C	36.9	D

Source: Fehr & Peers 2013.

Notes:

Signalized intersection delay is reported as average delay.

Shaded = exceeds CMP intersection LOS

The lane configurations and traffic volume projections at the study intersections are summarized in Table 5-4 of the Traffic Impact Study.

In summary, under long-range post-2035 conditions, with the future intersection lane configurations and the anticipated traffic volumes, all roadways and intersections would operate within the Town’s LOS D standards. With implementation of the proposed land use and circulation plan, no mitigation would be required to meet the Town’s LOS D standards.



IMPACT 5.14-2: FUTURE DEVELOPMENT THAT WOULD BE ACCOMMODATED BY THE GENERAL PLAN WOULD CONFLICT WITH THE APPLICABLE CONGESTION MANAGEMENT PROGRAM. [THRESHOLD T-2]

Impact Analysis: San Bernardino County’s CMP designated the SR-62 and SR-247 as CMP facilities within the Town of Yucca Valley; they are required to operate at “the middle of LOS D or better.” The intersections on the SR-62 and on the SR-247 must be consistent with the adopted CMP threshold, which is more stringent than the adopted Town threshold.

As shown on Table 5.14-6, the intersection of SR-62 at SR-247 is projected to operate at LOS D with a delay of 51.7 seconds during the PM peak hour, which is in excess of 45-second CMP maximum. Approximately 20 percent of the total volume in that intersection is anticipated to be regional based on model runs completed as part of this project—these trips are outside of the Town’s land use control. Finally, it should be noted that the growth projection assumed in the model will take many years to achieve, and the intersection will likely satisfy the CMP operating requirements well beyond Year 2035, depending on the ultimate absorption of the land use plan. However, because this intersection is projected in the long range to operate with delays in excess of CMP requirements, it would be inconsistent with the CMP and would result in a significant impact.

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IMPACT 5.14-3: **CIRCULATION IMPROVEMENTS ASSOCIATED WITH FUTURE DEVELOPMENT THAT WOULD BE ACCOMMODATED BY THE GENERAL PLAN WOULD BE DESIGNED TO ADEQUATELY ADDRESS POTENTIALLY HAZARDOUS CONDITIONS (SHARP CURVES, ETC.), POTENTIAL CONFLICTING USES, AND EMERGENCY ACCESS. [THRESHOLDS T-4 AND T-5]**

Impact Analysis: Buildout of the proposed General Plan would result in some changes to the Town's circulation network, but would not increase hazards or impact emergency access due to design features. Proposed as part of the General Plan effort are improvements of certain arterials throughout the Town to accommodate projected circulation needs. Figure 5.14-6 shows the future roadway network of Yucca Valley, which would widen some roadway segments from 2 to 4 lanes and from 4 to 6 lanes and would extend Indio Avenue from Sunnyslope Drive to Yucca Trail.

All future roadway system improvements associated with development and redevelopment activities under the General Plan would be designed in accordance with the established roadway design standards, some of which have also been incorporated into the Circulation Element of the General Plan. These improvements would be subject to review and future consideration by the Town of Yucca Valley engineering staff. An evaluation of the roadway alignments, intersection geometrics, and traffic control features would be needed. Roadway improvements would have to be made in accordance with the Town's Circulation Plan and roadway functional design guidelines, and meet design guidelines in the California Manual of Uniform Traffic Control Devices and the Caltrans Roadway Design Manual. Policy C1-19 in the Circulation Element encourages traffic-calming techniques in residential neighborhoods and special policy areas to slow and manage traffic volumes and speeds as deemed appropriate by the Town Engineer. Implementation of the General Plan would not result in hazardous conditions, create conflicting uses, or cause a detriment to emergency vehicle access. Since roadway improvements would have to be made in accordance with the Circulation Plan—especially Policy C1-19—impacts would be less than significant.

IMPACT 5.14-4: **THE PROPOSED PROJECT COMPLIES WITH ADOPTED POLICIES, PLANS, AND PROGRAMS FOR ALTERNATIVE TRANSPORTATION AND DOES NOT DECREASE THE SAFETY OF ALTERNATIVE TRANSPORTATION. [THRESHOLD T-6]**

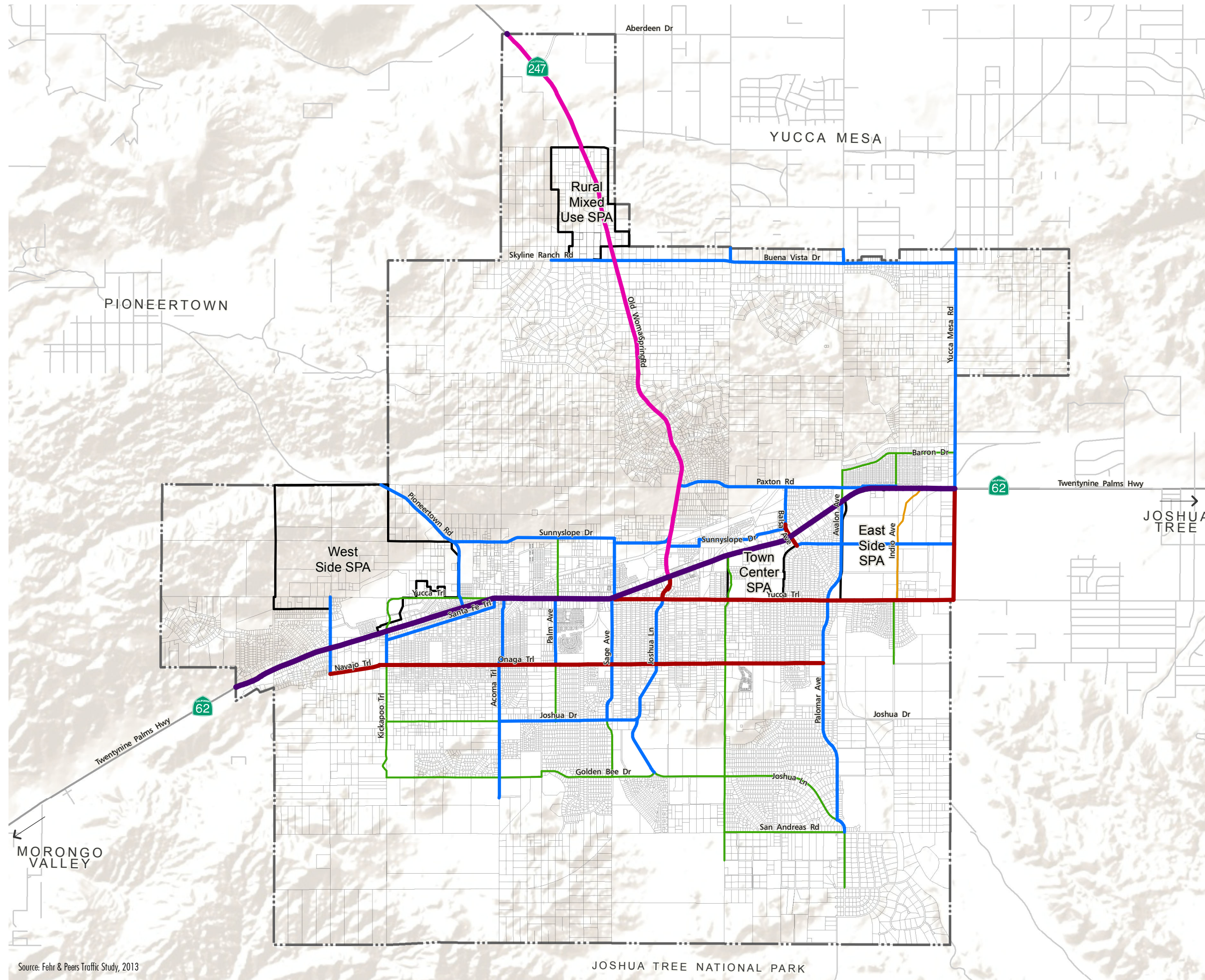
Impact Analysis: As part of a network-based approach, the Town has identified a complete network for each travel mode and will work to deliver infrastructure to support that travel mode and integration of multiple travel options, as appropriate. Since the complete streets network will accommodate all users of the system, and the Town's complete streets network is based on the type of user, it is helpful to understand how the system is classified. Yucca Valley's network is broken into three types of facilities—pedestrian, bicycle, and public transit. The proposed General Plan would support plans and programs for alternative transportation, as follows:

Bicycle Routes

Future bike routes and bike lanes are proposed on major arterials and collectors throughout Yucca Valley according to the San Bernardino County Non-Motorized Transportation Plan and the Yucca Valley Parks and Recreation Master Plan Update. These plans identify current bicycle facilities throughout the Town and provide policy and implementation strategies for enhancing the networks. The plans are intended to be cohesive and integrated, with a comprehensive pedestrian and bicycle system.

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Figure 5.14-6
PROPOSED ROADWAY SYSTEM



ROADWAY CLASSIFICATION DESIGNATION

- Highway – 6 Lanes Divided – 134'
- Highway – 4 Lanes Divided – 92'
- Arterial – 4 Lanes Divided – 100'
- Arterial – 2 Lanes – 70'
- Industrial – 2 Lanes with Striped Median – 70'
- Collector – 2 Lanes – 66'
- SPA - Special Policy Area
- Town Limits

NOTE: Illustrates future roadway classifications needed to handle the vehicular trips generated as a result of the buildout of the General Plan and applicable regional plans. Assumes all roadways are operating at Level of Service D or better.

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The Town proposes to enhance the bicycle network by upgrading nine existing bike routes to bike lanes and by implementing two new bike paths, nine new segments of bike lanes, and five bike routes to provide connectivity between key uses and destinations. The proposed bicycle network would have connections to the Yucca Valley Bus Transfer Center, Park & Ride Facility, and townwide bus stops. Recommended bicycle facilities are shown on Figure 5.14-7, *Future Bicycle Network*. Bicycle routes should be updated as part of a master plan effort, and the proposed network may change with future master plans.

Pedestrian Facilities

The San Bernardino County Non-Motorized Transportation Plan and the Yucca Valley Parks and Recreation Master Plan Update outline several trails available and proposed to the Yucca Valley community. Currently, limited continuous sidewalks are provided along major routes in the Town. Sections of discontinuous sidewalks exist, but most roads throughout Yucca Valley lack sidewalks. It is recommended in the Town General Plan Circulation Element to improve the sidewalk network by providing more connectivity through new sidewalk routes and making the existing sidewalk network smooth and continuous. Recommended sidewalks are shown on Figure 5.14-8, *Future Sidewalk Facilities*.

Public Transit

As discussed above, public transportation in Yucca Valley consists of public bus service operated by MBTA and the Ready-Ride service. Implementation of the proposed General Plan would promote the use of alternative transportation modes. Policies C 1-13, "Work with new development to implement MBTA's Transit Guidelines in Project Development" and Policy C1-14, "Encourage employers to support Transportation Demand Management technique," are included in the proposed General Plan to promote the use of public transit.

Summary

The Circulation Element policies support public transit, bicycle improvements, and improvements to the pedestrian facilities by closing gaps in the network, expanding the network, and coordinating with regional agencies (such as MBTA). They are also consistent with regional plans, such as the San Bernardino County Non-Motorized Transportation Plan and goals identified by MBTA. Additionally, General Plan policies support implementation of Complete Streets through a layered network approach, consistent with the state's Complete Streets Act. They are consistent with the existing adopted policies, plans and programs regarding public transit, bicycle, or pedestrian facilities.

5.14.4 Relevant General Plan Policies and Implementation Actions

The following are proposed General Plan policies and programs related to mobility.

Circulation

Circulation Element

- | | |
|--------------|--|
| Policy C 1-1 | Utilize constraints based planning process to evaluate future transportation improvements. |
| Policy C 1-2 | Pursue funding to assist in implementing the transportation system by expanding its roadway capacity, pedestrian sidewalk facilities, bicycle facilities, and trail facilities. |
| Policy C 1-3 | Strive to maintain vehicle level of service (LOS) D on local roadways and LOS E on Highways and Major arterials. Utilize the roadway capacities, as identified in Table 4-1, to evaluate roadway operations. |



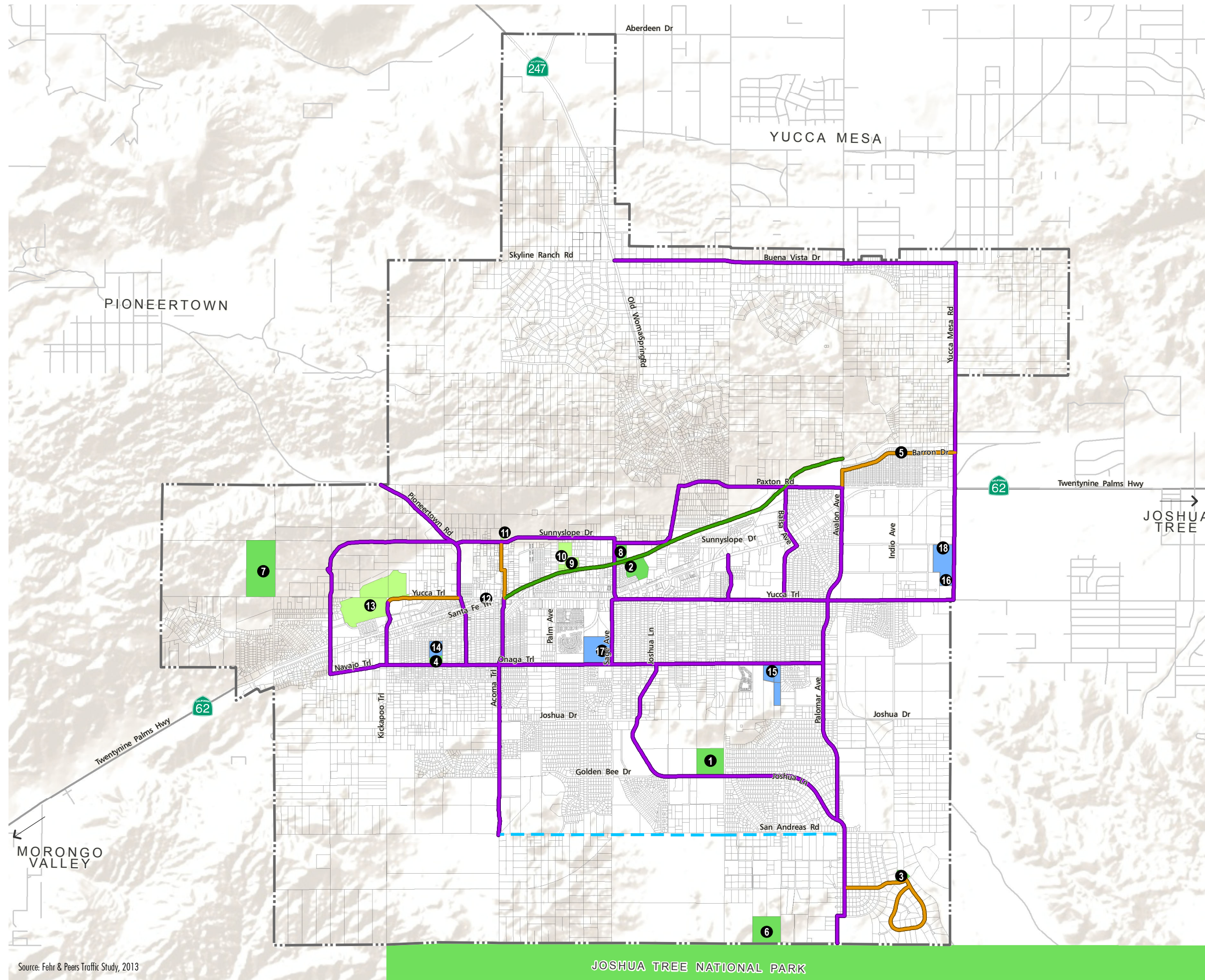
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- Policy C 1-4 Maintain protected intersections and roadways where vehicle capacity will remain less than the service goal as outlined in Table 4-1.
- Policy C 1-5 Prioritize low-cost transportation enhancements, such as signal timing improvements, to maximize the Town's return on infrastructure investment related to the efficiency of the transportation system.
- Policy C 1-6 Protect right of ways for SR-62 and SR-247, major arterials, collectors, residential streets, and for all other planned infrastructure as shown on the figures above.
- Policy C 1-7 Encourage development designs that integrate multiple modes of access including pedestrian, bicycle, and public transportation.
- Policy C 1-8 Apply complete street strategies that accommodate pedestrian, bicycle, transit modes whenever practicable and feasible.
- Policy C 1-9 Require sidewalk improvements concurrent with new development where commercial and school uses are planned and where residential densities exceed two units per acre, or as required by the Planning Commission.
- Policy C 1-10 Encourage MBTA to provide enhanced bus service to employment areas outside of the Town, such as the Coachella Valley or other nearby areas in the County of San Bernardino.
- Policy C 1-11 Encourage MBTA to work with area religious facilities or other sites where underutilized parking or hours of operation could provide opportunities for implementing shared park-and-ride facilities.
- Policy C 1-12 Encourage MBTA to implement regional transportation solutions that reduce vehicle miles traveled and greenhouse gas emissions.
- Policy C 1-13 Work with new development to implement MBTA's Transit Guidelines in Project Development (MBTA, 2005) as appropriate.
- Policy C 1-14 Encourage employers to support Transportation Demand Management techniques, such as bus transit passes or other measures that reduce the reliance of the single occupant vehicle.
- Policy C 1-15 Design designated truck routes such that the pavement, roadway width, and curb return radii support anticipated heavy vehicle use.
- Policy C 1-16 Support and work with Caltrans to coordinate signals along SR-62 and SR-247 in Town.
- Policy C 1-17 Ensure funding is available to implement and maintain signal coordination.
- Policy C 1-18 Maintain truck route designations to support heavy vehicle use to and from the Yucca Valley Airport.

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Figure 5.14-7
PROPOSED BICYCLE NETWORK



- Future Class I Bike Path
- Future Class II Bike Lane
- Future Class III Bike Route
- Multi-Use Trail
- Town Limits
- PARKS
 - ① Essig Park
 - ② Community Park
 - ③ Machris Park
 - ④ Jacobs Park
 - ⑤ Paradise Park
 - ⑥ South Park
 - ⑦ North Park
 - ⑧ Sunnyslope Park BMX Track
- OTHER OPEN SPACE
 - ⑨ Pop Rauch Park (Tri Valley Little League)
 - ⑩ Brehm Youth Park/ Boys and Girls Club
 - ⑪ Desert Christ Park (Desert Christ Park Foundation)
 - ⑫ Remembrance Park
 - ⑬ Blue Skies Country Club (Semi-Private)
- PUBLIC SCHOOL
 - ⑭ Yucca Valley Elementary School
 - ⑮ Onaga Elementary School
 - ⑯ La Contenta Middle School
 - ⑰ Yucca Valley High School
 - ⑱ Black Rock High School

Source: Fehr & Peers Traffic Study, 2013

JOSHUA TREE NATIONAL PARK

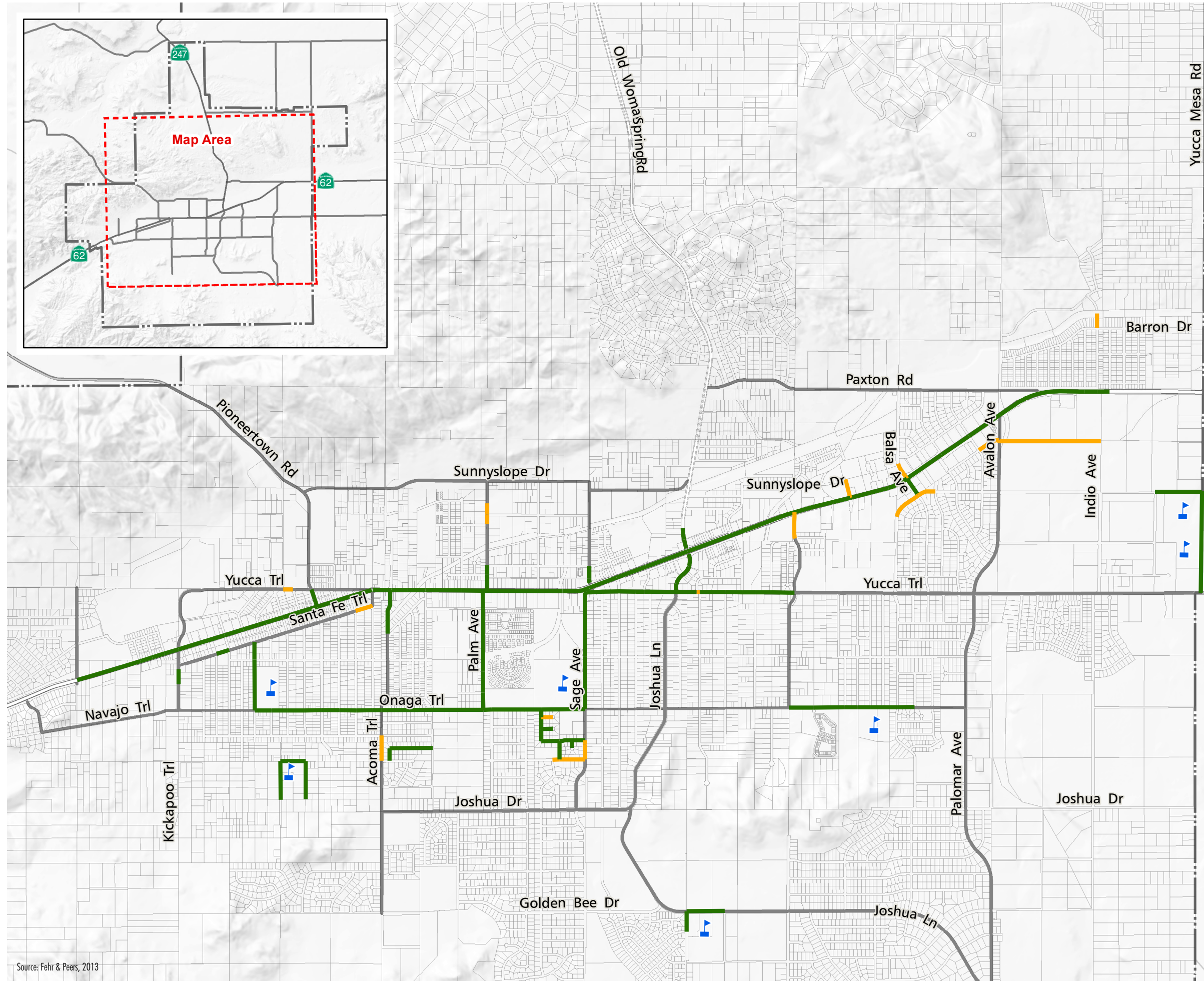
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Figure 5.14-8
PROPOSED SIDEWALK FACILITIES



- Schools
- Sidewalk on both sides of street
- Sidewalk on one side of street
- Town Limits

Source: Fehr & Peers, 2013

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Policy C 1-19	Require traffic calming techniques in residential neighborhoods and in Special Policy Areas to slow and manage traffic volumes and speeds as deemed appropriate by the Town Engineer.
Policy C 1-20	Require future development to pave roadways that will serve 500 or more daily trips unless paving of that facility is infeasible, there is no funding for the improvement, or when the majority of the residents on that facility desire it to be unpaved.
Policy C 1-21	Pursue funding to pave un-paved roadways where the traffic volume exceeds 500 daily trips unless paving of that facility is infeasible or when the majority of the residents on that facility desire it to be unpaved.
Policy C 1-22	Minimize dust emissions on existing and new unpaved roads where traffic volumes exceed 500 daily trips.
Policy C 1-23	Work with future development between Yucca Trail, Palomar Avenue, La Contenta Road and Juarez Drive to implement appropriate roadway, bicycle, and pedestrian connectivity based on the proposed land uses.
Policy C1-24	Work with the park service to the south of Town to appropriately provide connectivity to the Town's roadway network.
Policy C 1-25	Maintain truck routes through town for efficient freight transportation service to businesses and industry while limiting impacts to residents and visitors.
Policy C 2-1	Work with utility providers in the planning, designing and siting of distribution and support facilities to comply with the standards of the General Plan and Development Code.
Policy C 2-2	Work with utility providers to increase service capacity as demand increases.
Policy C 2-3	Coordinate public infrastructure improvements through the Town's Capital Improvement Program.
Policy C 2-4	Encourage the shared use of right-of-way, transmission corridors, and other appropriate measures to minimize the visual impact of utilities infrastructure throughout Town.
Policy C2-5	Require that approval of new development be contingent upon the project's ability to secure appropriate infrastructure services.



Circulation Implementation Actions

C 1	Prioritize and implement the changes to the roadway classifications in Town consistent with the Roadway Classification Map (General Plan Figure C-1) and the 2013 Traffic Study for inclusion in the Town's Capital Improvement Program.
C 2	Review and revise the street and traffic impact mitigation fee program.
C 3	Develop and maintain a list of the Town's protected intersections and roadways where: <ul style="list-style-type: none">• Acquiring the right-of-way is not feasible;

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- The segment is in the Old Town Specific Plan area where maintaining vehicle levels of service would not be consistent with the goals and policies of that plan;
 - The improvements would negatively impact the environment;
 - The improvements would negatively impact other community values or policies; and / or
 - Other physical or fiscal factors limit the implementation of the proposed mitigation measure.
- C 4 Apply for regional, state, and federal grant funding to improve the Town's circulation infrastructure.
- C 5 Provide signs and improve trails, bicycle, equestrian, and pedestrian connections consistent with the Town Trails Master Plan and Park and Recreation Master Plan based on available funding.
- C 6 Close gaps in the existing sidewalk network and provide sidewalks adjacent to schools consistent with the Future Sidewalks Map (Figure 4-3 of the 2013 Transportation Study).
- C 7 Update the Park and Recreation Master Plan to include bicycle and pedestrian facilities that are complementary to the connectivity and trails planning identified in the Town's Trails Master Plan.
- C 8 Apply for funding opportunities to improve pedestrian facilities near schools (such as Safe-Routes-To-School (SR2S) funding).
- C 9 Work with MBTA to plan and provide enhanced bus service to employment areas outside of the Town.
- C 10 Coordinate with MBTA and religious facilities to discuss expanding opportunities for implementing park-and-ride facilities.
- C 11 Consult with MBTA for bus stop placement and design.
- C 12 Consult with MBTA on street design to ensure the street accommodates access for a variety of transit options.
- C 13 Work with MBTA to create a program to expand ridership in Yucca Valley.
- C 14 Establish right-of-way landscaping, signage, and lighting requirements and guidelines to provide an attractive, user-friendly, and safe environment for all users.
- C 15 Update the Truck Routes Map as needed.
- C 16 Work with Marine Corps Air Ground Combat Center Twentynine Palms to notify residents of traffic impacts due to Marine caravans.
- C 17 Coordinate with the Yucca Valley Airport District to provide appropriate level of supporting transportation infrastructure connecting to the Yucca Valley Airport.

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C 18	Work with CalTrans to pursue funding for and implement low-cost transportation improvements such as traffic signal coordination where applicable.
C 19	Pursue funding to pave unpaved roadways where the traffic volume exceeds 500 daily trips.
C 20	Update the development code to require the application of non-toxic soil binder annually to minimize dust emissions on existing and new unpaved roads where traffic volumes exceed 500 daily trips if paving is not feasible.
C 21	Establish a timeframe and parameters for paving unpaved roadways, consistent with implementation action C 19.
C 22	Reevaluate traffic volumes through the annual Traffic Census Program.
C 23	Amend the development code to require that all new maintenance areas and utility substations and similar facilities are integrated with surrounding land uses, appropriately buffered, and aesthetically pleasing through the use of design and landscaping.
C 24	Coordinate with utility providers such as Southern California Edison to identify and estimate future demand and corresponding facilities required to serve projected local and regional growth.
C 25	Evaluate and prioritize public infrastructure improvements for inclusion in the Town's Capital Improvement Program.



Land Use

Land Use Element

Policy LU 1-1	Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure.
Policy LU 1-9	Encourage infill residential development around public facilities and with pedestrian linkages to encourage walkable residential neighborhoods.
Policy LU 2-4	Encourage the inclusion of pedestrian linkages and public amenities to promote walking on site and within clustered development.

Land Use Implementation Actions

LU 13	Coordinate with the Southern California Association of Governments and the Governor's Office of Planning and Research to stay informed of legislation and documentation of the nexus between land use, housing, transportation, and sustainability.
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5.14.5 Existing Regulations and Standard Conditions

State and Regional Regulations

- The California Complete Streets Act (Assembly Bill 1358)
- SB 375 Sustainable Communities and Climate Protection Act

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- San Bernardino County Congestion Management Plan

Town of Yucca Valley Municipal Code

- Title 12 - Vehicles and Traffic outlines the Town of Yucca Valley requirements related to traffic.

5.14.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.14-1, 5.14-3, and 5.14-4.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.14-2 Upon implementation of the land uses and circulation element included in the General Plan, the intersection of SR-62/SR-247 is projected to operate in excess of 45 seconds of delay in the PM peak hour, which is inconsistent with the CMP guidance for that facility.

5.14.7 Mitigation Measures

Impact 5.14-2

No feasible mitigation measures are available to reduce impacts at this intersection.

5.14.8 Level of Significance After Mitigation

Impact 5.14-2

The proposed intersection improvements required to meet the San Bernardino County CMP acceptable level of service standards may be difficult to achieve due to right-of-way acquisitions at the intersection of SR-62 and SR-247. This intersection would operate at in excess of 45 seconds of delay in the PM peak hour, which is inconsistent with the CMP guidance for that facility. Therefore, impacts at this intersection would be significant and unavoidable.

5.14.9 References

Fehr and Peers. 2013, June 18. Town of Yucca Valley Transportation Study.

Town of Yucca Valley. 1995. General Plan Circulation Element.

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5.15 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Environmental Impact Report (DEIR) addresses the potential for implementation of the Yucca Valley General Plan Update to impact utility and service systems in the Town of Yucca Valley, including water, wastewater, and solid waste services and systems. Water quality and discharge permits are discussed in Section 5.9, *Hydrology and Water Quality*, of this DEIR.

5.15.1 Water Supply and Distribution Systems

5.15.1.1 Environmental Setting

The Hi-Desert Water District (HDWD) provides municipal water to a 57-square-mile area, including much of the Town of Yucca Valley and some unincorporated surrounding area (see Figure 5.15-1, *Hi-Desert Water District Service Area*).

Regulatory Setting

State

20x2020 Water Conservation Plan

The 20x2020 Water Conservation Plan, issued by the Department of Water Resources (DWR) in 2010 pursuant to the Water Conservation Act of 2009 (SBX7-7), established a water conservation target of 20 percent reduction in water use by 2020 compared to the 2005 baseline use.

Senate Bills 610 and 221

To assist water suppliers, cities, and counties with integrated water and land use planning, the state passed Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001), effective January 1, 2002. SB 610 and SB 221 improve the link between information of water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to city and county decision makers prior to approval of specified large development projects. They also require that this detailed information be included in the administrative record as the evidentiary basis for an approval action by the city or county on such projects. Both measures recognize local control and decision making regarding the availability of water for projects and the approval of projects. Under SB 610, water supply assessments (WSA) must be furnished to local governments for inclusion in any environmental documentation for certain projects subject to CEQA (defined in Water Code Section 10912[a]). Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative verification of sufficient water supply. SB 221 is intended as a fail-safe mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins.

A WSA is required for any project if it is a residential development of 500 units or more; a shopping center or business establishment project employing more than 1,000 persons or having more than 500,000 square feet of floor space; a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; or an industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area. Individual development projects implemented under the proposed land use plan would be required to prepare a WSA if they meet these requirements.

The Hi-Desert Water District Urban Water Management Plan (UWMP) is a foundational document for compliance with both SB 610 and SB 221. In 1983, the California legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act states that every urban water supplier that provides water to 3,000 or



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more customers, or that provides over 3,000 acre feet (af) of water annually, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple dry years. Both SB 610 and SB 221 repeatedly identify the UWMP as a planning document that, if properly prepared, can be used by a water supplier to meet the standards in both statutes. Thorough and complete UWMPs are foundations for water suppliers to fulfill the specific requirements of these two statutes and important source documents for cities and counties as they update their General Plans. Conversely, General Plans are source documents as water suppliers update the UWMPs. These planning documents are linked, and their accuracy and usefulness are interdependent (CDWR 2003).

Urban Water Management Planning Act

The Urban Water Management Planning Act of 1983, California Water Code Sections 10610 et seq., requires preparation of a plan that:

- Plans for water supply, and assesses reliability of each source of water supply, over a 20-year period in five-year increments.
- Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years.
- Implements conservation and the efficient use of urban water supplies. Significant new requirements for quantified demand reductions have been added by the Water Conservation Act of 2009 (Senate Bill 7 of Special Extended Session 7 (SBX7-7)), which amends the act and adds new water conservation provisions to the Water Code. (Kennedy-Jenks Consultants 2011)

Principles Governing CEQA Analysis of Water Supply

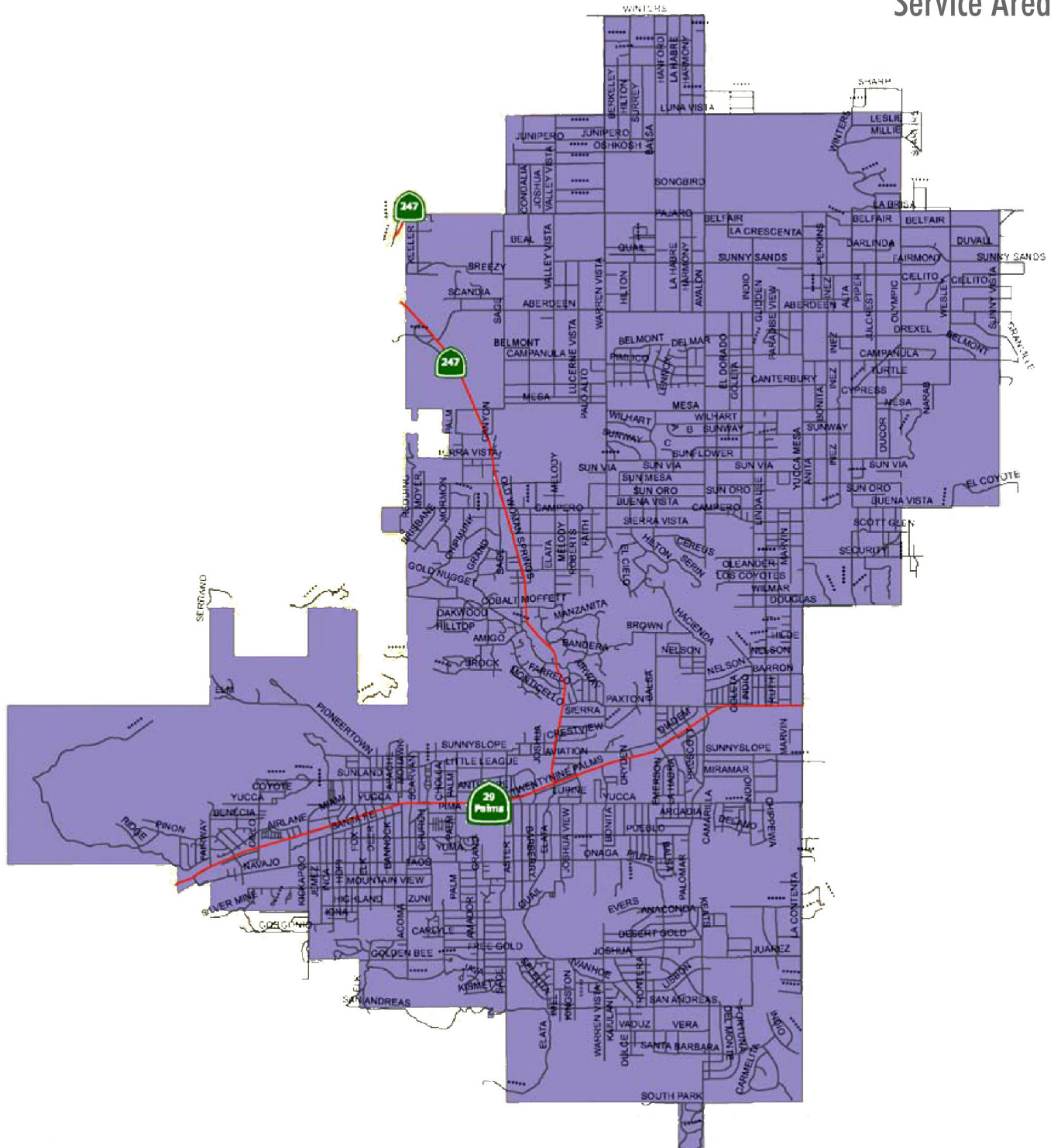
In *Vineyard Area Citizens for Responsible Growth, Inc., v. City of Rancho Cordova* (February 1, 2007), the California Supreme Court articulated the following principles for analysis of future water supplies for projects subject to CEQA:

- To meet CEQA's informational purposes, the EIR must present sufficient facts to decision makers to evaluate the pros and cons of supplying the necessary amount of water to the project.
- CEQA analysis for large, multiphase projects must assume that all phases of the project will eventually be built and the EIR must analyze, to the extent reasonably possible, the impacts of providing water to the entire project. Tiering cannot be used to defer water supply analysis until future phases of the project are built.
- CEQA analysis cannot rely on "paper water." The EIR must discuss why the identified water should reasonably be expected to be available. Future water supplies must be likely, rather than speculative.
- When there is some uncertainty regarding availability of future water supply, an EIR should acknowledge the degree of uncertainty, include a discussion of possible alternative sources, and identify the environmental impacts of such alternative sources. Where a full discussion still leaves some uncertainty about the long-term water supply's availability, mitigation measures for curtailing future development in the event that intended sources become unavailable may become a part of the EIR's approach.

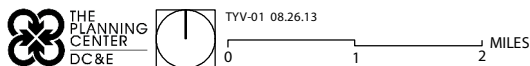
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Figure 5.15-1

Hi-Desert Water District
Service Area



Source: Kennedy-Jenks 2011



YUCCA VALLEY
GENERAL PLAN

DRAFT EIR

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- The EIR does not need to show that water supplies are definitely assured because such a degree of certainty would be “unworkable, as it would require water planning to far outpace land use planning.” The requisite degree of certainty of a project’s water supply varies with the stage of project approval. CEQA does not require large projects, at the early planning phase, to provide high degree of assurances of certainty regarding long-term future water supplies.
- The EIR analysis may rely on existing urban water management plans, as long as the project’s new demand was included in the water management plan’s future demand accounting.
- The ultimate question under CEQA is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project.

Water Sources

HDWD currently has four main sources of water supply—groundwater from Warren Valley Basin, groundwater from Reche/Ames/Means Valley Groundwater Basin, septic system and irrigation return flows to groundwater, and State Water Project (SWP) imports via the Mojave Water Agency (MWA) to recharge the Warren Valley Basin.

Groundwater

HDWD obtains water from two groundwater basins, shown on Figure 5.8-3, *Groundwater Basins Map*.

Warren Valley Basin

The Warren Valley Basin covers approximately 26.9 square miles and includes the water-bearing sediments beneath the Town of Yucca Valley and the surrounding area. The Warren Valley Basin is bounded on the north by the Pinto Mountain fault, on the south by the bedrock outcrop of the Little San Bernardino Mountains, on the east by a bedrock constriction called the “Yucca Barrier,” and on the west by a bedrock constriction and a topographic divide between the Warren Valley and Morongo Valley. The Warren Valley Basin has an estimated total storage capacity of approximately 568,000 af, with an estimated usable storage capacity of approximately 160,000 af. Groundwater production from the Warren Groundwater Basin is regulated under a 1977 Superior Court judgment,¹ the 1991 Warren Valley Basin Management Plan, and 1996 Addendum thereto, issued pursuant to the court judgment. The Warren Groundwater Basin is recharged by percolation of rainfall and of ephemeral flows in Water Canyon and Covington Canyon; return flows from septic systems and irrigation; and recharge from the SWP, which began in 1995, at three percolation ponds operated by HDWD. Since recharge with SWP water began, groundwater levels in the Warren Basin have risen substantially. Of the 15 of 17 Warren Basin wells for which data are available, groundwater levels rose an average of 151 feet between the 1992–93 and 2011–2012 water years (HDWD 2012a).

The Warren Valley Basin began to be substantially overdrafted in or around the 1950s. As population grew in the Yucca Valley area, overdraft worsened and groundwater level decline accelerated. The usable groundwater supply was forecast to be depleted by the year 2000 if steps were not taken to correct the overdraft. A 1977 San Bernardino County Superior Court judgment (“Warren Valley Judgment”) established rights to extract groundwater from the Warren Valley Basin by water rights holders in the Warren Valley Basin, including HDWD, the Yucca Water Company (which was acquired by HDWD in 1990), Blue Skies Country Club, the Institute of Mentalphysics, and 16 minimal pumpers.

In addition to limiting groundwater extraction rights in the Warren Valley Basin, the judgment ordered the development of a solution to basin overdraft. The judgment declared that supplemental water supplies would be require; and included the Warren Valley Basin within the service area of the MWA, which has a right to purchase supplemental water from the State Water Project. The court appointed HDWD as the Watermaster to administer and

¹ *Hi-Desert County Water District v. Yucca Water Company, Ltd.*, San Bernardino County Superior Court Case No. 172103.



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enforce the provisions of the judgment, including the requirement to develop a means of bringing additional water to the basin.

The main component of the solution to overdraft ordered in the judgment is the 71-mile Morongo Basin Pipeline (MBP), extending from the California Aqueduct near Hesperia to the Yucca Valley area. Water deliveries via the MBP to HDWD percolation ponds began in 1995.

The HDWD, as Watermaster, performs a variety of monitoring and other management activities, including levying groundwater production assessments; groundwater monitoring; maintaining a basinwide water quality protection plan; implementing the basin management plan; establishing and administering groundwater storage agreements; and overseeing and approving all exchanges, purchases, transfers, sales, or leases of water.

Nitrate Pollution from Septic System Return Flow. The detected amount of nitrate in the District's groundwater, 12.8 parts per million (ppm), is well within the US Environmental Protection Agency's maximum contaminant level of 45 ppm. However, the Colorado River Basin Regional Water Quality Control Board (CRBRWQCB) has concluded that concentrations of nitrate in the Warren Valley Basin may be inconsistent with their water quality objectives. Partially treated wastewater, or septage, in septic tanks was identified as the primary source of nitrate to the groundwater system in 2003 by the US Geological Survey. Increasing groundwater use caused the groundwater level to drop over 300 feet between the 1940s and 1995, when recharge of the basin with imported SWP water began. During that time, groundwater levels dropped faster than nitrates from septic systems moved downward. However, groundwater levels in HDWD Warren Valley Basin wells have risen an average of 151 feet between the 1992–93 and 2011–2012 water years. High levels of nitrates from septic systems were found in some wells after recharge with SWP water began. An estimated 820 af of septic discharge currently reaches the groundwater annually (HDWD 2012b).

Because the Warren Valley Basin has elevated nitrates due to septic discharge, in 2011 the CRBRWQCB prohibited discharge from septic systems in areas of the Town of Yucca Valley (shown on Figure 5.8-4, *Wastewater Treatment Project Phasing Map*). The prohibition will be phased, with areas of the Town prohibited from discharging beginning in 2016, 2019, and 2022. A wastewater treatment and water reclamation system that would collect, treat, and reclaim wastewater in a majority of Yucca Valley is currently being developed. The system, which is projected to begin operation in 2016, includes a sewer collection system, a wastewater treatment plant, and water reclamation recharge ponds. The wastewater treatment and water reclamation system is discussed further in Section 5.15.2, *Wastewater Treatment and Collection*, below.

Ames Valley Basin

This groundwater basin underlies Ames Valley, Homestead Valley, and Pipes Wash in the southcentral San Bernardino County. The basin is bounded by non-water-bearing rocks of the San Bernardino Mountains on the west, of Iron Ridge on the north, and of Hidalgo Mountain on the northeast. The Emerson, Copper Mountain, and West Calico faults form parts of the eastern and northern boundaries. The southern boundary and parts of the northern and eastern boundaries lie along surface drainage divides. The valley is drained northeastward by Pipes Wash to Emerson (dry) Lake. Total storage capacity was estimated to be 1,200,000 af in 1975; and groundwater in storage was estimated at 540,000 af in 1972 (CDWR 2004). The Ames Valley Groundwater Basin is managed under a regional water management plan issued in 2004 by the Mojave Water Agency. An Ames Valley Recharge Project, under construction and with operation forecast by 2015, will intentionally recharge the Ames Valley Basin with imported water from the State Water Project. The Ames Valley Recharge Project will be managed under an Ames/Reche Groundwater Storage and Recovery Program and Management Agreement, and a groundwater management plan (GWMP) for the Ames Valley Basin, which were approved by HDWD, MWA, the County of San Bernardino, and the Bighorn-Desert View Water Agency (BDVWA)² in March 2012 (Kennedy-Jenks 2011). The Ames Valley Recharge Project is scheduled to begin operating at the end of 2013 (Ban 2013).

² The Bighorn-Desert View Water Agency provides water to unincorporated areas of San Bernardino County north of the Town of Yucca Valley, including the communities of Landers and Johnson Valley.

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HDWD Groundwater Wells

HDWD has 18 groundwater wells, 13 of which are active. One active well is in the Ames Valley Basin, and the remainder of the wells are in the Warren Valley Basin (Kennedy-Jenks 2011; MWH 2007). Total water production capacity for all 18 wells is approximately 7.9 million gallons per day (Ban 2013). Capacity per well ranges from 80 to 1,467 gallons per minute (MWH 2007).

Imported Water

HDWD purchases water imported from northern California via the State Water Project from the MWA, one of the 29 entities holding contracts for receipt of SWP water. Water is conveyed via the 71-mile MBP extending from the California Aqueduct near Hesperia to the Yucca Valley area. SWP water is delivered via the MBP to three other water suppliers besides HDWD: BDVWA, San Bernardino County Service Area No. 70, and Joshua Basin Water District (JBWD). San Bernardino County Service Area No. 70 has two service areas near HDWD: one to the north near the community of Landers, and one to the west in the community of Pioneertown. JBWD's service area abuts the east side of HDWD's service area and is centered on the community of Joshua Tree. Pursuant to the 1991 Agreement for Construction, Operation, and Financing of the Morongo Basin Pipeline Project (MBP Agreement), HDWD was entitled to 4,282 acre-feet per year (afy) of SWP water (one acre-foot is about 325,851 gallons). MWA's allotment of SWP water increased from 50,800 afy in 1998 to 89,800 afy by 2020. HDWD's entitlement to SWP water, about 8.4 percent of MWA's allotment, is therefore expected to increase to approximately 7,569 afy by 2020. HDWD can also purchase portions of the MWA allotment allocated to BDVWA and JBWD, neither of which have chosen thus far to receive SWP supplies. The delivery capacity of the MBP is approximately 15,930 afy.

Imported water is used to recharge the Warren Valley Groundwater Basin at three percolation ponds owned and operated by HDWD. The total recharge capacity of the three ponds is approximately 6,800 to 7,000 afy. Average historical deliveries of SWP water within the Warren Valley Groundwater Basin have been 3,464 afy. A groundwater recharge system in the Ames Valley Groundwater Basin north of the Town of Yucca Valley is planned to begin operation by 2015 and is planned to recharge 703 afy (Kennedy-Jenks 2011). The total recharge capacity of the Ames Valley Recharge Project is 1,500 afy, consisting of 1,000 afy for HDWD and 500 afy for the County of San Bernardino (Ban 2013).



Water Banking

HDWD buys excess SWP water from MWA, when available, to store in the Warren Valley Basin for future use when SWP supplies are not available. As of January 2011, the HDWD had over 17,146 af of water banked in the Warren Valley Basin, purchased from MWA since 1995 (Kennedy-Jenks 2011). HDWD also plans to bank imported water in the Ames Valley Basin upon planned start of operation of the recharge project there at the end of 2013 (Ban 2013).

Septic and Irrigation Return Flows

Septic system and irrigation return flow is typically calculated as a percent of the total groundwater pumped. Average recharge due to septic and irrigation return was estimated in 2009 as 820 afy. A phased prohibition of septic system use in most of Yucca Valley will begin in 2016. Some septic return from areas to be served by Phases 2 and 3 of the proposed wastewater treatment and water reclamation system is expected to continue after 2016 (prohibitions will take effect in Phases 2 and 3 in 2019 and 2022, respectively). However, HDWD water supply forecasts assume no septic return flows after 2016 (Kennedy-Jenks 2011).

Water Sources for Residents Outside of HDWD

Residents outside of HDWD obtain water through a combination of local community water systems, hauling water to their properties or having it hauled by commercial water haulers, and private groundwater wells (Samara 2013).

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Recycled Water

While a wastewater treatment and water reclamation system is planned, all treated wastewater from the system would be used for recharge of the Warren Valley Groundwater Basin. No system for recycled water delivery and use by HDWD water customers is planned.

Water Supplies

Existing and planned HDWD water supplies are shown in Table 5.15-1, as shown in HDWD's 2010 Urban Water Management Plan. As shown, total supplies—including existing and planned supply sources—are forecast to increase from 19,713 afy in 2010 to 37,470 afy in 2035.

Table 5.15-1
Existing and Planned Water Supplies and Demands, acre-feet per year

Water Source	2010	2015	2020	2025	2030	2035
Existing Supplies						
Groundwater, Warren Valley Basin	1,622	1,622	1,622	1,622	1,622	1,622
Groundwater, Ames Valley Basin	800	0	0	0	0	0
Returns from Septic Tanks and Irrigation	820	820	0	0	0	0
Groundwater Recharge (imported SWP Water)	2,569	2,569	2,569	2,569	2,612	2,612
Banked Groundwater (cumulative) from SWP imported water	15,524	20,416	24,480	27,676	29,957	31,279
Subtotal	19,713	23,805	27,049	30,245	32,569	33,891
Planned Supplies						
Treated Wastewater (recharge, Warren Valley Basin)	0	0	1,863	2,604	2,737	2,876
Ames Valley Recharge Project	0	703	703	703	703	703
Subtotal	0	703	2,566	3,307	3,440	3,579
Total Supplies	19,713	24,508	29,615	33,552	36,009	37,470
Total Estimated Demands	3,147	3,483	3,567	3,727	3,888	4,029

Source: Kennedy-Jenks 2011.

Water Supply Reliability

Each water supply source has its own reliability characteristics. In any given year, the variability in weather patterns around the state may affect the availability of supplies to HDWD's service area. For example, the three years 2000–2002 were dry years in southern California, but northern California had one dry year and two average years in the same period. Local groundwater supplies in southern California are typically used more when imported supplies are reduced due to dry conditions in the north, and more imported water is used during wetter conditions in northern California. This pattern of “conjunctive use” has been in effect since SWP supplies first came to the Yucca Valley area in 1995 via the MBP. Since the MBP was constructed, SWP supplies from MWA have supplemented the overall supply of HDWD and helped offset the historical overdraft of the Warren Valley Basin.

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The amount of SWP water allocated to contractors each year depends on several factors than can vary significantly. The main factors affecting SWP supply availability include hydrologic conditions in northern California, the amount of water in SWP storage reservoirs at the beginning of the year, regulatory and operational constraints, and the total amount of water requested by the contractors. The availability of SWP supplies to MWA and the other SWP contractors is generally less than contractors' requests in many years and can be significantly less in very dry years.

DWR's "State Water Project Delivery Reliability Report 2009", issued in August 2010, assists SWP contractors in assessing the reliability of the SWP component of their overall supplies. The report updates DWR's estimate of the current (2009) and future (2029) water delivery reliability of the SWP. The analysis shows that deliveries will be less under current and future conditions, when compared to the preceding report.

DWR estimates assumed existing SWP facilities and operating constraints for both the 2009 and 2029 studies. The major differences between the two studies are an increase in projected SWP contractor demands and an increase in forecast upstream demands (which affects SWP supplies by reducing the amount of inflows available for the SWP). DWR presents the SWP delivery capability resulting from these studies as a percent of full contractor request amounts, which is 60 percent of requests as the long-term average supply until 2029, and 61 percent in 2029 and after.

To estimate supply capability between 2009 and 2029, DWR interpolates between the results of those studies. HDWD has used and relied upon the information and analyses prepared by DWR and MWA for purposes of quantifying the amounts of SWP supplies available to the District.

HDWD recognizes that various factors may affect the consistency of SWP water supplies and the amount and timing of SWP exports. Those factors include legal, regulatory, environmental, and water quality issues affecting threatened and endangered fish species in the Sacramento River Delta, drought conditions, seismic or other emergencies, climate change, or other extraordinary and unforeseen circumstances. Such uncertainty regarding SWP water supplies is incorporated into HDWD's 2010 UWMP.



Water Conservation Measures

Water conservation practices and programs conducted by HDWD include:

- Water loss control, including replacement of leaking pipelines
- Tiered water pricing
- Public education and school education programs
- Rebates for purchases of high-efficiency clothes washers
- Required retrofits with water-efficient fixtures on resale of properties
- Requirements for new construction, including water-efficient landscaping and air conditioning

The SBX7-7 2020 demand reduction goal for HDWD is 117 gallons per capita per day (gpcd). Water use in 2009 was 120 gpcd. HDWD expects to meet the 2020 demand reduction goal through continued implementation of existing water conservation measures as well as new measures being considered.

Water Shortage Planning

HDWD has mandatory water use restrictions for responding to a catastrophic loss of water supply, such as a natural disaster.

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Growth Restriction

The District restricted future sales of new water meters for new developments—relative to groundwater reserves in the Warren Valley Basin—in 2004 through Policy No. 26-04, so that recharge of the Basin with SWP water, begun in 1995, could replenish the basin rather than be consumed by new developments.

Restrictions in sales of new water meters are specified below in Table 5.15-2; restrictions are only in effect during years when reserves in the basin are equal or less than five years water demand in that year. Policy 26-04 is based upon the amount of SWP water obtained by HDWD less the amount of extracted groundwater used to supply demand. Years of reserve are determined using a conservative annual production value of 3,000 afy. Currently, the amount of water in reserves using this method is approximately 5.5 years. It has not grown much because the District is managing its groundwater levels to ensure that groundwater does not rise into nitrate-contaminated soil above the aquifer. However, reserves are not declining to near the values outlined within the policy for limiting meter sales. Should the annual water demand increase, HDWD would simply take more of its SWP allocation to ensure that reserves, as measured per Policy 26-04, stay above the 5-year threshold for limiting meter sales (Ban 2013).

Table 5.15-2
Growth Restriction: Sales of New Water Meters for New Developments

Stage	Restriction: sale of new water meters for new developments, as percentage of total existing meters	Triggering Condition, Warren Valley Basin Groundwater Reserves
1	2 percent	Reserves equal or less than five years of water demand for that particular year
2	1 percent	reserves equal or less than four years of water demand for that particular year
3	0 percent	reserves equal or less than three years of water demand for that particular year

Source: Kennedy-Jenks 2011.

Water Storage

HDWD has two means of intentional water storage:³

- Reservoirs: 16 reservoirs, mostly in the southern and central parts of its service area, with total capacity of 12.9 million gallons (MWH 2007).
- Water banking of imported water in the Warren Valley Basin, described above under “Imported Water.” HDWD will also be able to bank imported water in the Ames Valley Basin once the recharge project there begins operating, planned for the end of 2013 (Ban 2013).

³ Naturally occurring storage capacity in the Warren Valley Basin, described above under *Groundwater*, is not included in this description of water storage capacity.

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Water Conveyance

HDWD's pipeline system consists of 312.5 miles of pipeline ranging up to 12 inches diameter, shown in Figure 5.15-2, *Existing Water Facilities*. HDWD replaces water mains within its service boundaries at a rate of 25,000 to 40,000 linear feet per year. The program is intended to mainly replace aging steel water mains that are undersized and failing. Additional mains built of materials other than steel and also insufficient in capacity are also scheduled for replacement.

There are no water systems in the Town other than that of HDWD; thus, residents outside of HDWD's service area rely on water hauling or private wells (Ban 2013).

5.15.1.2 *Thresholds of Significance*

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- U-4 Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

5.15.1.3 *Environmental Impacts*

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.15-1: *PROJECTED WATER SUPPLIES ARE ADEQUATE TO ACCOMMODATE WATER DEMAND FOR THE TOWN OF YUCCA VALLEY AT GENERAL PLAN BUILDOUT. [THRESHOLDS U-2 (PART) AND U-4]*

Impact Analysis:

Water Demand Forecasts

Total projected water demand for the Town of Yucca Valley is 2,923 afy in 2012, 2,754 afy in 2020, 3,040 afy in 2035 (SCAG), and 7,989 afy at post-2035 General Plan buildout.⁴

Water Demands Compared to Water Supplies

HDWD is required to update its UWMP once every five years; each update must assess the reliability of HDWD water supplies over a 20-year period. Forecast water demands due to General Plan buildout, relative to forecast HDWD water supplies, are shown below in Table 5.15-3.

⁴ In million gallons per day (mgd), the water demands are 2.61 mgd in 2012, 2.46 mgd in 2020, 2.71 mgd in 2035 (SCAG), and 7.13 mgd (post-2035 General Plan buildout). The reduction in total projected water demands for the Town between 2012 and 2020 reflects the water conservation requirement in SBX7-7, the Water Conservation Act of 2009.



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Table 5.15-3
Forecast General Plan Update Water Demands Compared to
Forecast Water Supplies, Acre-Feet per Year

	2020	2035	Post-2035 Full Buildout
Water Demands, Proposed General Plan	2,754	3,040	7,989
Water Supplies (HDWD) ¹	29,615	37,470	No available forecast

¹ Source: Kennedy-Jenks 2011.

Total forecast HDWD water supplies in 2035, 37,470 afy, are more than four times larger than total forecast water demands in the Town of Yucca Valley at General Plan buildout, 7,989 afy. Approximately 83 percent of forecast HDWD water supplies in 2035 are cumulative reserves of banked groundwater obtained from the SWP. Uncertainty about future annual SWP deliveries also applies to forecasts of cumulative banked groundwater derived from SWP imports.

The Town of Yucca Valley and applicants for future projects considered for approval under the proposed General Plan would comply with state laws governing water supply planning and water conservation, as well as with the restriction in sales of new water meters relative to groundwater reserves in the Warren Valley Basin set forth as HDWD Policy 26-04, discussed above in Section 5.15.1.1. With these restrictions, forecast 2035 HDWD water supplies would be adequate for water demands resulting from General Plan buildout.

Groundwater Well Pumping Capacity

Maximum daily water demand was estimated in the Water System Master Plan as 6,642 afy at 33 percent service area buildout; 13,507 afy at 67 percent buildout; and 20,171 afy at 100 percent buildout.

Water Storage

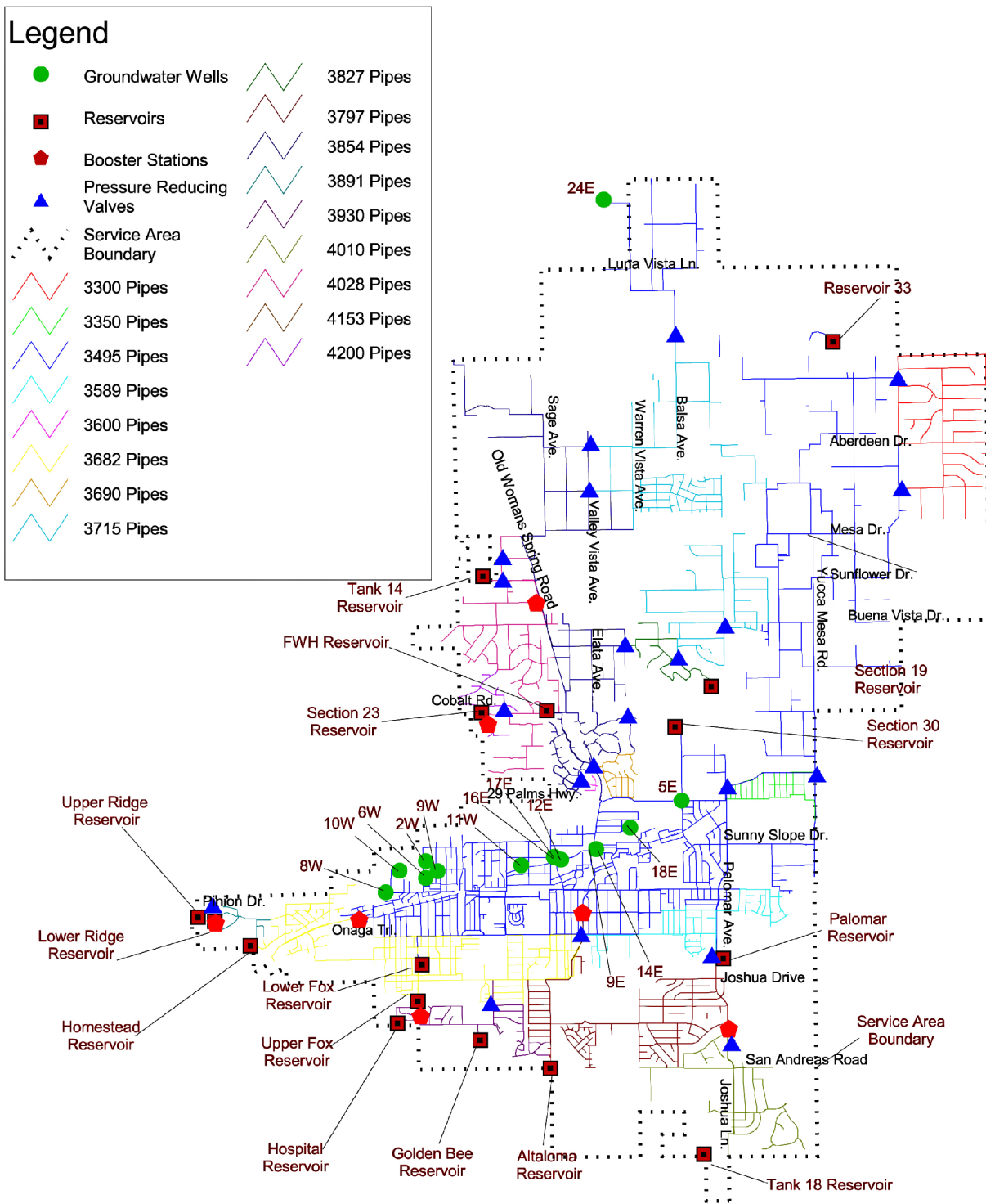
HDWD's service area is divided into 17 pressure zones, shown on Figure 5.15-2. Additional reservoir capacity would be needed in two pressure zones to accommodate growth pursuant to the General Plan Update.

- Pressure Zone 3797 in the southeast part of the Town: Additional storage of 0.25 million gallons or more would be needed to accommodate planned residential growth.
- Pressure Zone 3589 in the east-central part of the Town: Pressure Zone 3589 does not contain a water storage reservoir to provide an emergency water supply during electrical outages or fire suppression efforts. The pressure zone is controlled utilizing stored water from pressure zone 3797, which is reduced through the use of pressure-reducing valves on Joshua Lane crossing Onaga Trail and Palomar crossing Onaga Trail. Increased residential growth within this area, would require the construction of an additional water storage reservoir (1.25 MG) and booster station capable of delivering 600 gpm of "firm" capacity (Ban 2013).

Construction of the needed reservoirs described above would be subject to independent CEQA review for each project to ensure sufficient water storage for each project.

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Figure 5.15-2
Existing Water Facilities



Source: MWH 2007



YUCCA VALLEY
GENERAL PLAN

DRAFT EIR

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Water Delivery

Buildout of the General Plan would require construction of additional water pipelines; existing pipelines are shown in Figure 5.15-2. HDWD replaces water mains within its service boundaries at a rate of 25,000 to 40,000 linear feet per year. The program is intended to mainly replace aging steel water mains that are undersized and failing. Additional mains built of materials other than steel and also insufficient in capacity are also scheduled for replacement. As a result, some of the proposed changes listed within the General Plan Update may be met with inadequate capacity for fire flow/high demand conditions. Replacement of mains serving such areas should be considered as development occurs. These improvements are generally covered by HDWD rates and fees; however, in the event development occurs prior to replacement by the HDWD, the developer may be required to replace water mains or other infrastructure.

Additional water mains would generally be built in roadways. Impacts of construction of additional water mains would be part of the impacts of construction of General Plan buildout as a whole that are analyzed throughout Chapter 5 of this Draft EIR. No additional impacts would occur.

5.15.1.4 Relevant General Plan Update Policies

Land Use Element

Balanced Land Uses

- LU 1-1 Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure.
- LU 1-3 Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development.
- LU 1-16 Require high quality building design, property maintenance, amenities for pedestrian access, and adequate circulation, utilities, and infrastructure.



Open Space and Conservation Element

Water Resources

- OSC 5-1 Support Hi-Desert Water District efforts to promote water conservation and efficiency in existing and new development.
- OSC 5-2 Protect open spaces, natural habitat, floodplains, and wetland areas that serve as groundwater recharge areas; and participate in regional transportation/flood control planning to increase groundwater recharge concurrent with flood plain management practices.
- OSC 5-3 Protect groundwater recharge and groundwater quality when considering new development projects.
- OSC 5-4 Participate in regional water planning efforts to protect groundwater resources and to assist the HDWD in implementation of its wastewater collection and treatment system.
- OSC 6-1 Coordinate with the Hi-Desert Water District to share information on potential groundwater contaminating sources.

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OSC 6-2 Coordinate with the Hi-Desert Water District to implement the wastewater collection and treatment system.

OSC 6-3 Require low water use, drought resistant landscape planting to reduce water demand.

5.15.1.5 Existing Regulations

State

- California Water Code Sections 10800 et seq. and 10608 et seq.: Water Conservation Act of 2009
- California Public Resources Code Section 21151.9 and California Water Code (various sections):
 - SB 610: Water Supply Assessments
 - SB 221: Written Verification of Water Supply
- California Water Code Section 10631: Urban Water Management Planning Act

5.15.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, Impact 5.15-1 would be less than significant.

5.15.1.7 Mitigation Measures

No mitigation is required.

5.15.1.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.15.2 Wastewater Treatment and Collection

5.15.2.1 Environmental Setting

Existing Wastewater Generation and Disposal

Nearly all land uses in Yucca Valley currently rely on individual septic systems to treat wastewater; a few commercial and residential developments rely on packaged wastewater treatment systems. Wastewater generation is assumed to be 80 gallons per person per day (Ban 2013), or about 1.7 million gallons per day (mgd) for the Town based on the existing population of 21,282.

Pollution from Septic Tanks and CRBRWQCB Groundwater Quality Objectives

Nitrate, total dissolved solids (TDS), and/or pathogen pollution from septic tanks have been identified by the CRBRWQCB. The CRBRWQCB's groundwater quality objective is to "minimize the quantities of contaminants reaching any groundwater basin...the objective will be to maintain the existing water quality where feasible" (CRBRWQCB 2011).

Proposed Wastewater Treatment and Water Reclamation System

On November 1, 2011, the CRBRWQCB amended its basin plan to prohibit discharge from septic systems in the Town of Yucca Valley. The prohibition will be phased, with areas of the Town prohibited from discharging beginning in 2016, 2019, and 2022 (see Figure 5.8-4, *Wastewater Treatment Project Phasing*). A wastewater treatment and water

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reclamation system that would collect, treat, and reclaim wastewater in a majority of Yucca Valley is currently being developed. The system, which is projected to begin operation in 2016, includes a sewer collection system, a wastewater treatment plant, and water reclamation recharge ponds (HDWD 2012b). The wastewater treatment facility would be south of SR-62 and near the east Town boundary.

Treatment technology

Two treatment technologies are being considered for the treatment facility: extended aeration and membrane bioreactors.

A conventional extended aeration process uses the activated sludge process, secondary clarification, and tertiary filters to produce a filtered effluent ready for disinfection (see Figure 5.15-2, *Extended Aeration Process Flow Schematic*). Disinfection would be carried out using ultraviolet light.

The high-rate membrane bioreactor (MBR) alternative uses the activated sludge process in combination with submerged membrane filtration to provide the functions normally provided by aeration basins, secondary clarification, and tertiary filtration. As a result, there is no need for clarifiers or filters. Disinfection is accomplished with ultraviolet light (see Figure 5.15-3, *Membrane Bioreactor Process Flow Schematic*) (MWH 2009a).

Treatment Capacity

Planned wastewater treatment system capacity is shown below in Table 5.15-4.

Table 5.15-4
Wastewater Treatment System Capacity

Phase	Initial Operation Date, planned	Capacity, million gallons per day
1	2016	1.5 to 2
2	2019	3
3	2022	4
Ultimate Buildout	To be determined	6

Source: HDWD 2009.



Treatment System Cost and Funding

The cost of Phase 1 of the wastewater treatment and water reclamation system is \$125 million. HDWD has over \$7.5 million in hand toward system construction and is seeking federal, state, and local grants, loans, and other funding sources to cover part of the cost. A loan from the State Revolving Fund will be used to fund the project, and the payments by property owners will repay the loan. An assessment district to finance Phase 1 of the project is currently being planned by HDWD. An assessment district election would be required to establish the assessment district. Payments from property owners to repay the state loan would be made through the assessment district. Additional assessment districts would be required to finance Phases 2 and 3 of the project (Ban 2013; HDWD 2012b).

The cost of a private property connection averages about \$2,000. HDWD is applying for low-interest loans to help finance private property connections over 30 years. Property owners who opt to finance under this program would pay \$4 to \$8 per month over 30 years. Property owners would also pay a monthly service charge for the cost to operate the treatment plant and sewer network. Charges for residential properties in Phase 1 are expected to range from \$36 per single-family residence to \$21.60 per mobile home.

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Wastewater Collection

Approximately 77 miles of sewers are planned for Phase 1 of the water reclamation system, consisting of approximately 74.7 miles of gravity sewers and 2.3 miles of force mains, that is, pressurized sewers conveying wastewater from a pump station to another gravity sewer. Sewers would range from 8 to 36 inches in diameter (MWH 2009b).

Treated Wastewater Disposal

All treated wastewater would be percolated into the Warren Valley Basin at ponds next to the proposed wastewater treatment facility.

Regulatory Setting

The regulatory setting for wastewater treatment and collection includes the federal Clean Water Act (United States Code, Title 33, Sections 1251 et seq.); National Pollutant Discharge Elimination System regulations (Code of Federal Regulations Title 40 Parts 122 et seq.); the California Water Quality Control Act, also known as the Porter-Cologne Act (California Water Code Sections 13000 et seq.); and the Basin Plan for the Colorado River Basin issued by the CRBRWQCB in 2006. These are described in detail in Section 5.8.1, Environmental Setting, of Section 5.8, *Hydrology and Water Quality*, of this DEIR.

5.15.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-1 Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
- U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- U-5 Would result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

5.15.2.3 Environmental Impacts

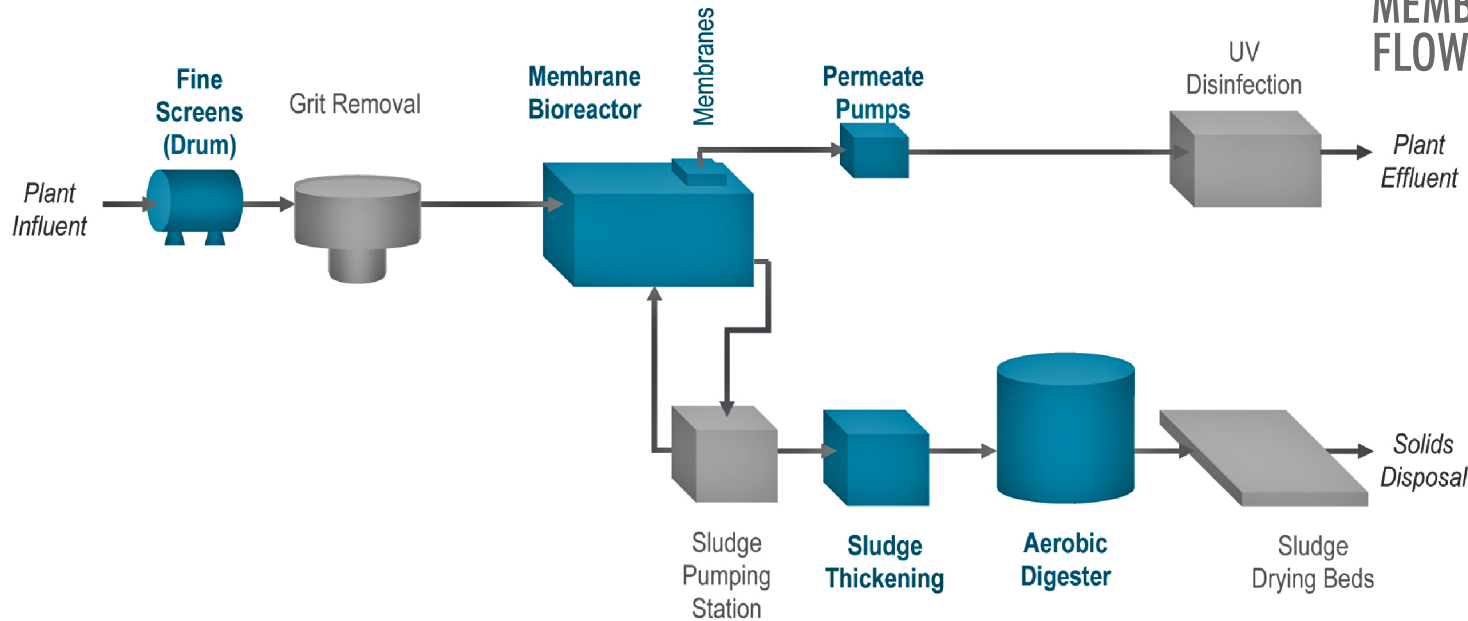
The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.15-2: THE HI-DESERT WATER DISTRICT WOULD NEED TO EXPAND EXISTING WASTEWATER TREATMENT AND WATER RECLAMATION SYSTEMS TO SERVE THE TOWN OF YUCCA VALLEY AT GENERAL PLAN BUILDOUT. [THRESHOLDS U-1, U-2 (PART), AND U-5]

5.15 - UTILITIES AND SERVICE SYSTEMS

Figure 5.15-3

MEMBRANE BIOREACTOR PROCESS FLOW SCHEMATIC



<u>UV Disinfection</u>	
Type	Low pressure, high intensity
Design Dose	100 mW-sec/cm ²
Design Effluent Transmittance	55%
<u>Solids Handling</u>	
Net Yield Ratio	0.80 lb TSS/lb BOD _{rem}
Dewatering Equipment	Sludge drying beds



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Impact Analysis:

Forecast Wastewater Generation Due to General Plan Update Buildout

Wastewater generation of 80 gallons per person per day (gpcd) was assumed in design of the proposed wastewater treatment system for Yucca Valley (Ban 2013). No reduction in wastewater generation in future years related to water conservation measures is assumed. Therefore, at General Plan Update buildout population of 64,565, estimated wastewater generation is approximately 5.17 mgd.

Most of the northern part of the Town and the southwest corner of the Town are outside of the service area of the proposed wastewater treatment and water reclamation system. Until or unless HDWD chooses to expand the wastewater treatment and collection system beyond Phase 3, residents and businesses in those areas would continue to dispose of wastewater via septic tanks or packaged wastewater treatment systems.

Planned Wastewater Treatment Capacity

At completion of Phases 1, 2, and 3, the wastewater treatment system would have capacity of 4 mgd. Completion of Phase 3 is scheduled for 2022. In 2035, wastewater generation in HDWD's entire service area is forecast at about 2.57 mgd (Kennedy-Jenks 2011).

Wastewater generation from the Town of Yucca Valley at full buildout of the General Plan Update, 5.17 mgd, would exceed the 4 mgd capacity of the wastewater treatment system at completion of Phase 3. At ultimate buildout, the wastewater treatment system would have capacity of 6 mgd, adequate for wastewater generation from the Town at full General Plan buildout. Expansions of the wastewater treatment system beyond Phase 3 have not been planned or funded. Such expansions would be planned and funded as required by growth in the Town and in HDWD's service area.



5.15.2.4 Relevant General Plan Update Policies

Land Use Element

Balanced Land Uses

- LU 1-1 Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure.
- LU 1-3 Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development.
- LU 1-16 Require high quality building design, property maintenance, amenities for pedestrian access, and adequate circulation, utilities, and infrastructure.

Special Policy Areas

- LU 2-9 Coordinate with the Hi-Desert Water District to facilitate development of a new wastewater treatment plant in the area (East Side SPA).

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Open Space and Conservation Element

Water Resources

OSC 5-4 Participate in regional water planning efforts to protect groundwater resources and to assist the HDWD in implementation of its wastewater collection and treatment system.

OSC 6-2 Coordinate with the Hi-Desert Water District to implement the wastewater collection and treatment system.

5.15.2.5 Existing Regulations

Federal

- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act
- Code of Federal Regulations Title 40 Parts 122 et seq.: National Pollutant Discharge Elimination System.

State

- California Water Code Sections 13000 et seq.: Porter-Cologne Water Quality Act

Regional

- Basin Plan, Colorado River Basin Regional Water Quality Control Board

5.15.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, Impact 5.15-2 would be less than significant.

5.15.2.7 Mitigation Measures

No mitigation measures are required.

5.15.2.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.15.3 Storm Drainage Systems

5.15.3.1 Environmental Setting

Existing Conditions

Precipitation in the Lucerne Valley Planning Area of the Colorado River Basin occurs mostly as rainfall, with some snowfall in the San Bernardino Mountains. Rainfall is sporadic, and amounts vary widely with location. Mean annual precipitation ranges from 16 inches in the San Bernardino Mountains to less than 3 inches in the Bristol Lake (dry) area. The average annual rainfall over the entire planning area is 5 inches. Little of the rainwater percolates into the groundwater table; most is lost by evaporation and by evapotranspiration.

A significant portion of Yucca Valley encompasses alluvial fans or plains that slope gradually from the base of the mountains. Most of these areas have at least scattered development; however, higher density development is

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present on the alluvial fans in the main valley, between the Sawtooth and Little San Bernardino Mountains. Most of the existing development in Yucca Valley has been completed without significant alteration to the natural terrain. As a result, natural drainage courses pass through developed or semideveloped areas. Small channels pass through private yards, and some structures are built within the flow paths of shallow drainages. Most streets, many of which are unpaved, follow the natural contours of the land, crossing arroyos and gullies without the benefit of culverts or bridges. These crossings can quickly become filled with fast-moving floodwaters, trapping vehicles or washing them downstream. Where flows are concentrated or obstructed, the sandy soils that are prevalent can easily erode, forming new gullies and undermining structures.

Development in Yucca Valley has occurred in a piecemeal fashion over the years, much of it before the Town incorporated, and without the benefit of a planned drainage network. Many existing drainage courses are unimproved, and brief but intense storms can quickly overwhelm them, pushing water and sediment over low-lying areas and making unpaved roads impassable. The number of flood control facilities in the Town is limited, and these are mostly in the lowest part of the main valley along Yucca Wash. Some of these improvements have been made under the direction of the San Bernardino County Flood Control District (SBCFCD), and others have been constructed by developers as a condition of approval for their projects.

Regional Facilities. The SBCFCD operates and maintains regional flood control facilities along Yucca Wash and small portions of several tributaries, including Old Woman Springs Creek, Covington Wash, Burnt Mountain Creek, Long Canyon, High School Canyon, Hospital Canyon, and Church Street. These improvements consist mostly of open, graded earth channels, locally with rock reinforcements. Levees are present along the eastern portion of the Yucca Wash and Burnt Creek channels. Desilting basins are present in Long Canyon and Old Woman Springs Creek (see Figure 5.8-2, *Drainage Facilities*).

Local Facilities. The Town of Yucca Valley has the responsibility of maintaining local flood control improvements. These mostly consist of small unlined earth channels, although some sections are locally lined with concrete or have some form of slope protection. Some streets are constructed with high curbs, so that they function as flood control channels during storms.

Master Plan of Drainage

A Master Plan of Drainage (MPD) for the Town of Yucca Valley was prepared for the San Bernardino County Flood Control District in 1999 (Tettermer 1999). The MPD analyzed and estimated costs of two general scenarios: a detained system using detention basins and a nondetained system. The detained system was found to be less costly, \$102 million compared to \$121 million for the nondetained system. Proposed drainage improvements identified in the 1999 MPD include:

Channels

- Water Canyon (partly revetted soft bottom, partly rock lined)
- Acoma Outlet Channel (rock lined)
- West Burnt Mountain (part soft-bottom, part rock lined)
- East Burnt Mountain (part concrete; part underground concrete; part rock lined, part revetted soft bottom)
- Buena Vista Wash (soft bottom)
- Sage (rock lined)
- Old Woman Springs (part rock lined, part rock-revetted soft bottom)
- Covington Wash (rock-revetted soft bottom)
- Sierra Vista Wash (part rock lined, part rock-revetted soft bottom)



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Drains

- La Honda (underground)
- Inca Trail
- Palm Avenue
- Kickapoo

Street drains: Improvements to several additional streets were planned, similar to those of existing street drains.

Basins

Seven basins were included in the MPD: one existing basin (Old Woman Springs), an expansion to a second existing basin (Long Canyon), and five planned basins. All basins except Old Woman Springs Basin were sized to hold the debris volume from a 100-year storm. Selected characteristics of the five planned and one expanded basins are provided below.

- Water Canyon Basin: 438 af storage capacity, 126,000 cubic yards (cy) debris capacity, 35 acres.
- Kickapoo Basin: 32 af storage capacity, 26,500 cy debris capacity, 8 acres.
- Acoma Basin: 90 af storage capacity, 57,000 cy debris capacity, 10 acres.
- Long Canyon Basin (expanded): 130 af storage capacity, 108,000 cy debris capacity, 15 acres.
- East Burnt Mountain Basin: 194 af storage capacity, 39,000 cy debris capacity, 20 acres.
- West Burnt Mountain Basin: 96 af storage capacity, 50,000 cy debris capacity, 20 acres.

Based on a survey of locations of proposed facilities using Google Satellite View in May 2013, the Old Woman Springs Channel has been built, both upstream and downstream of Old Woman Springs Basin. Remaining proposed facilities in the 1999 MPD have not yet been built.

Flood Zones

There are 100-year flood zones in the Town along Pinyon Creek, Water Creek, Yucca Wash, Hospital Canyon, Long Canyon, West and East Burnt Mountain Creeks, Covington Wash, as well as a few other drainages (see Figure 5.8-5, *Flood Hazard Zones*).

Regulatory Setting

Drainage

Town of Yucca Valley

The Town of Yucca Valley charges a development impact fee for construction and maintenance of general facilities, park facilities, trail facilities, storm drain facilities, and street and traffic facilities, authorized by Municipal Code Chapter 3.40. The fee amounts set forth by Ordinance No. 217 on October 19, 2010, are as follows:

- | | |
|---|----------------------------------|
| • Single-family residential development | \$9,081.00 per unit |
| • Multi-family residential development | \$6,352.00 per unit |
| • Commercial development | \$7,735.00 per 1,000 square feet |
| • Office development | \$7,038.00 per 1,000 square feet |
| • Industrial development | \$3,176.00 per 1,000 square feet |

The amounts of the development impact fees are amended from time to time by the Town Council.

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Flood Hazards and Flood Insurance

Regulations pertaining to the National Flood Insurance Program and Federal Emergency Management Agency flood hazard zones are described in Section 5.8, *Hydrology and Water Quality*.

5.15.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-3 Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

5.15.3.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.15-3: DEVELOPMENT PURSUANT TO THE PROPOSED GENERAL PLAN UPDATE WOULD INCREASE SURFACE WATER FLOWS INTO DRAINAGE SYSTEMS WITHIN THE AFFECTED WATERSHEDS AS A RESULT OF AN INCREASE IN IMPERVIOUS SURFACES IN THE TOWN. HOWEVER, THE TOWN'S MASTER PLAN OF DRAINAGE WOULD ACCOMMODATE ANTICIPATED STORMWATER FLOWS WITHIN THE TOWN OF YUCCA VALLEY. [THRESHOLD U-3]

Impact Analysis:

Increases in Impervious Areas and Drainage Flows

The proposed General Plan Update would apply to the entire Town. At buildout of the General Plan Update, 98.5 percent of the Town's 25,492 acres—that is, 25,106 acres—would be designated for some type of developed land use, with the remaining 386 acres designated for Open Space – Conservation. Currently, 16,661 acres, or 65.4 percent of the Town, consist of vacant land. Therefore, General Plan Update implementation would involve development of 16,275 acres (that is, 16,661 – 386; or 63.8 percent of the Town's area) of currently vacant land. Buildout of the proposed General Plan Update would increase the amount of impervious surfaces in the Town, thus increasing surface water flows into drainage systems within the four watersheds in the Town.

Required Drainage Improvements

Buildout of the General Plan Update would require completion of all of the planned facilities in the MPD. Each development pursuant to the General Plan Update would be required to pay a Development Impact Fee to the Town of Yucca Valley to pay for construction and maintenance of public infrastructure facilities, including drainage facilities. Each development would be subject to independent CEQA review that would analyze impacts of construction of required offsite infrastructure improvements to ensure no flooding on- or offsite. In addition, once the Town reaches the threshold population density to be included in the Statewide Small MS4 Permit, SRWCB Order No. 2013-0001-DWQ, (1,000 persons per square mile), projects developed pursuant to the General Plan Update that build or replace 5,000 square feet of impervious surfaces would be required to minimize runoff per provisions of the Small MS4 Permit.



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5.15.3.4 Relevant General Plan Update Policies

Land Use Element

Balanced Land Uses

- LU 1-1 Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure.
- LU 1-3 Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development.
- LU 1-16 Require high quality building design, property maintenance, amenities for pedestrian access, and adequate circulation, utilities, and infrastructure.

Open Space and Conservation Element

Water Resources

- OSC 5-2 Protect open spaces, natural habitat, floodplains, and wetland areas that serve as groundwater recharge areas; and participate in regional transportation/flood control planning to increase groundwater recharge concurrent with flood plain management practices.
- OSC 5-3 Protect groundwater recharge and groundwater quality when considering new development projects.
- OSC 5-4 Participate in regional water planning efforts to protect groundwater resources and to assist the HDWD in implementation of its wastewater collection and treatment system.

5.15.3.5 Existing Regulations

Town of Yucca Valley

- Municipal Code Chapter 3.40: Development Impact Fees

5.15.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, Impact 5.15-3 would be less than significant.

5.15.3.7 Mitigation Measures

No mitigation is required.

5.15.3.8 Level of Significance After Mitigation

Impacts would be less than significant.

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5.15.4 Solid Waste

5.15.4.1 Environmental Setting

Solid Waste Collection and Disposal

Solid waste from all land uses in the Town of Yucca Valley is collected by Burrtec Waste Industries.

Solid waste generated by land uses in Yucca Valley is received by landfills owned and operated by the San Bernardino County Department of Public Works Solid Waste Management Division (SWMD). In 2011, approximately 97 percent of solid waste generated in the town was disposed of at the Landers Sanitary Landfill in the unincorporated community of Landers, approximately 10 miles north of Yucca Valley. Landers Sanitary Landfill has permitted throughput of 1,200 tons per day; a remaining capacity of 765,000 cubic yards, or about 408,000 tons; actual disposal in 2011 averaged 155 tons per day;⁵ and an estimated closing date of August 2018 (CalRecycle 2013a, 2013b).

SWMD plans to expand the Landers Sanitary Landfill and will be seeking a permit from CalRecycle for such expansion (Richardson 2013).

Solid Waste Diversion

The Integrated Waste Management Act (2000) requires all local jurisdictions to divert 50 percent of total annual solid waste tonnage to be recycled. In 2008, the requirements were modified to reflect a per capita requirement, rather than a tonnage. Each jurisdiction has both a per capita and per employee target diversion rate, which are calculated from the average of 50 percent of generation between base years 2003 through 2006, expressed in terms of per capita disposal.

The Town of Yucca Valley's target diversion rates are 9.2 pounds per capita per day and 42.3 pounds per employee per day. Table 5.15-5 provides the actual disposal tonnage and diversion rates between 2007 and 2011. The Town met both its per capita and per employee diversion target rates every year during that period.



**Table 5.15-5
Yucca Valley Solid Waste Generation and Diversion Rates, 2005-2010**

Year	Total Solid Waste (Tons)	Diversion Rate Per Capita (Pounds Per Day)		Diversion Rate Per Employee (Pounds Per Day)	
		Target	Actual	Target	Actual
2007	21,728	9.2	5.7	42.3	24.5
2008	18,189	9.2	4.7	42.3	20.5
2009	17,469	9.2	4.5	42.3	21.0
2010	16,471	9.2	4.4	42.3	22.0
2011	17,512	9.2	4.6	42.3	22.5

Sources: CalRecycle 2013c, Cal Recycle 2013d.

Note: Actual disposal rates at or below target rates are one of several measures of compliance with the diversion requirements of AB 939.

⁵ Based on 300 operating days per year. Landers Sanitary Landfill is open six days per week, Monday–Saturday (SWMD 2013), except certain holidays.

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Regulatory Setting

State

AB 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.) established an integrated waste-management system that focused on source reduction, recycling, composting, and land disposal of waste. AB 939 required every California city and county to divert 50 percent of its waste from landfills by the year 2000. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates; actual rates at or below target rates are consistent with AB 939. AB 939 also requires California counties to show 15 years disposal capacity for all jurisdictions within the county, or show a plan to transform or divert its waste.

Assembly Bill 341 (AB 341; Statutes of 2011, Chapter 476) increases statewide goal to increase waste diversion to 75 percent by 2020 and mandates commercial recycling (multifamily recycling also mandatory). AB 341 does not change requirements for local jurisdictions regarding solid waste diversion per AB 939 (CalRecycle 2012e).

5.15.4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

- U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.
- U-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

5.15.4.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.15-4: EXISTING AND/OR PROPOSED FACILITIES WOULD BE ABLE TO ACCOMMODATE PROJECT-GENERATED SOLID WASTE AND COMPLY WITH RELATED SOLID WASTE REGULATIONS. [THRESHOLDS U-6 AND U-7]

Impact Analysis:

Forecast Solid Waste Generation

Solid waste generation from the Town of Yucca Valley, including both residential and employment-generating land uses, was estimated in modeling for the greenhouse gas emissions analysis. The forecast is based on average solid waste generation during the three years 2009–2011, using data from CalRecycle, and is adjusted for estimated future increases in population and employment. Forecast generation in tons per year is:

- Existing Conditions: 17,151
- 2020: 18,174
- 2035 (SCAG):⁶ 20,092
- Full buildout: 56,983

⁶ Uses 2035 population and employment estimates for Town of Yucca Valley from SCAG 2012 Regional Transportation Plan growth forecast.

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Landfill Capacity

The Landers Sanitary Landfill is described in Section 5.15.4.1, above. Landers Sanitary Landfill is scheduled to close in 2018 (Richardson 2013), but SWMD plans to expand the Landers Sanitary Landfill. Permitted capacity at the facility after the expansion has not been determined yet. Postexpansion capacity is expected to comply with the requirement of AB 939 that counties identify 15 years solid waste disposal capacity for all jurisdictions within the county; thus, it is anticipated to be adequate solid waste disposal capacity for the Town at least through 2030.

5.15.4.4 *Relevant General Plan Update Policies*

Land Use Element

Balanced Land Uses

- LU 1-1 Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure.
- LU 1-3 Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development.
- LU 1-16 Require high quality building design, property maintenance, amenities for pedestrian access, and adequate circulation, utilities, and infrastructure.

Safety Element

Hazardous Materials

- S 6-3 Encourage businesses to utilize practices and technologies that will reduce the generation of hazardous waste.
- S 6-4 Promote the proper disposal, handling, transport, delivery, treatment, recovery, recycling, and storage of hazardous materials.

5.15.4.5 *Existing Regulations*

State

California Public Resources Code 40050 et seq.: AB 939, Integrated Solid Waste Management Act of 1989.

5.15.4.6 *Level of Significance Before Mitigation*

Upon implementation of regulatory requirements, Impact 5.15-4 would be less than significant.

5.15.4.7 *Mitigation Measures*

No mitigation is required.

5.15.4.8 *Level of Significance After Mitigation*

Impacts would be less than significant.



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5.15.5 Utilities

5.15.5.1 Environmental Setting

Electricity

Electricity Supplies

Southern California Edison (SCE) supplies electricity to Yucca Valley. SCE's service area spans much of southern and eastern California, from parts of Riverside County on the southeast to part of Santa Barbara County on the southwest to Mono County on the north (CEC 2011a). Total electricity consumption in SCE's service area in gigawatt-hours is forecast to be 103,791 GWh in 2015 and to increase to 112,535 GWh in 2022 (CEC 2012a).

Electric-Generating Capacity in California

Existing

In 2011, about 200,000 GWh of electricity were generated in California, including that generated by government agencies, utilities, and commercial generators. Net imports of electricity into the state in 2011 amounted to approximately 85,000 GWh (CEC 2013). One electric generating facility in the Morongo Basin is shown on the California Energy Commission "California Power Plants" map, a solar facility near the City of Twentynine Palms (CEC 2012b).⁷

Planned and Under Construction

Renewable Generation: The California Public Utilities Commission has approved contracts with roughly 7,700 MW of in-state central-station resources that have yet become operational (a share of these have begun construction, but many have not.) Note that, despite contracts, a not-insignificant share of these will ultimately fail to come online. The state has implemented programs for distributed renewable generation—for example, rooftop solar—that have various targets that have yet to be reached. For example, the California Solar Initiative has a 3,000 MW target, 1,600 MW of which has been constructed. The Renewable Auction Mechanism and the Solar Photovoltaic Program have targets totaling roughly 2,100 MW, perhaps 500 MW of which have been contracted, less than 200 MW of which have begun operation. The Governor's Office has set an overall target of 12,000 MW of renewable distributed generation by 2020; existing programs (including those listed above) have targets totaling 9,000 MW, meaning that programs totaling 3,000 MW would need to be developed. Some 3,000 MW of this 12,000 are operational (Vidaver 2013).

Fossil Fuel Generation. 2,030 MW of gas-fired generation is under construction as of May 2013 (Vidaver 2013).

Electricity Transmission

Two transmission lines serve Yucca Valley, each carrying between 116 to 161 kV capacity; the two lines connect to higher-capacity transmission lines in the Coachella Valley. One SCE substation, the Yucca Substation, is in Yucca Valley (CEC 2012c).

⁷ SCE obtains electricity from many sources distributed over a wide area; energy sources include natural gas, nuclear, and renewable energy, coal, and hydroelectric (SCE 2012).

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Natural Gas

Supplies

The Southern California Gas Company (SoCalGas) supplies natural gas to Yucca Valley. SoCalGas serves most of southern California, from Imperial County on the south to San Luis Obispo County and part of Fresno County. Total supplies of natural gas available to SoCalGas are expected to remain stable at 3.875 billion cubic feet per day (bcfd) between 2015 and 2030. Total natural gas consumption in SoCalGas's service area is forecast to be 2,615 bcfd in 2015 and 2,619 bcfd in 2030 (CGEU 2012).

Transmission

Two natural gas transmission pipelines, part of SoCalGas's transmission pipeline network, pass east-west through the Morongo Basin. The pipelines connect to other SoCalGas pipelines in the Coachella Valley to the southwest, and in eastern San Bernardino County to the northeast (CEC 2011b).

Telephone

Verizon provides landline telephone service in Yucca Valley.

Cable

Time-Warner Cable provides cable television service in Yucca Valley.

Regulatory Setting

State

Assembly Bill 32, the Global Warming Solutions Act (2006)

Current State of California guidance and goals for reductions in greenhouse gas (GHG) emissions are generally embodied in Assembly Bill 32 (AB 32), the Global Warming Solutions Act. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05.

AB 32 directed the California Air Resources Board (CARB) to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. Based on the GHG emissions inventory conducted for the Scoping Plan by CARB, GHG emissions in California by 2020 are anticipated to be approximately 596 million metric tons of CO₂ equivalence (MMTCO₂e). In December 2007, CARB approved a 2020 emissions limit of 427 MMTCO₂e (471 million tons) for the State. The 2020 target requires a total emissions reduction of 169 MMTCO₂e, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e. 28.5 percent of 596 MMTCO₂e) (CARB 2008).⁸

In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT of CO₂ per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and

⁸ CARB defines BAU in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.



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programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions.

CARB 2008 Scoping Plan

The final Scoping Plan was adopted by CARB on December 11, 2008. Key elements of CARB's GHG reduction plan that may be applicable to the proposed project include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards (adopted and cycle updates in progress);
- Achieving a mix of 33 percent for energy generation from renewable sources (anticipated by 2020);
- A California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system for large stationary sources (adopted 2011);
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets (several Sustainable Communities Strategies have been adopted);
- Adopting and implementing measures pursuant to State laws and policies, including California's clean car standards (amendments to the Pavley Standards adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (adopted 2009).⁹
- Creating target fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation (in progress).

California Building Code

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and updated triannually (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the CEC adopted the 2013 Building and Energy Efficiency Standards, which go into effect on January 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (nonresidential) more energy efficient than the 2008 standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in homes and businesses.

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as CALGreen) was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations). CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011.

⁹ On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the court's rulings preliminarily enjoins the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Ninth Circuit Court granted CARB's motion for a stay of the injunction while it continues to consider CARB's appeal of the lower court's decision.

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2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and nonfederally regulated appliances.

5.15.5.2 *Thresholds of Significance*

Although not specifically in Appendix G of the CEQA Guidelines, the following additional threshold is also addressed in the impact analysis: a project would normally have a significant effect on the environment if the project:

- U-8 Would increase demand for other public services or utilities.

5.15.5.3 *Environmental Impacts*

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.15-5: EXISTING AND/OR PROPOSED FACILITIES WOULD BE ABLE TO ACCOMMODATE PROJECT-GENERATED UTILITY DEMANDS. [NO SPECIFIC THRESHOLD]

Impact Analysis:

Electricity Demands

Electricity demands resulting from implementation of the General Plan Update are forecast as follows in kilowatt hours (Kwh) per year (one Gwh is 1,000,000 Kwh):

- 2012: 118 million
- 2020: 126 million
- 2035 SCAG:¹⁰ 139 million
- Full buildout: 426 million

Total electricity consumption in SCE's service area is forecast to be 103,791 GWh in 2015 and to increase to 112,535 GWh in 2022 (CEC 2012a). SCE is forecast to have adequate electricity supplies to meet electricity demands resulting from General Plan Update buildout. Buildout of the General Plan Update would not require SCE to obtain additional electricity supplies beyond its currently forecast supplies. Electricity demands of full buildout would likely require new substations to transmit electricity for peak demands. Proposed substations would be subject to independent CEQA review; impacts of construction and operation of any additional needed substations would be identified and mitigated in CEQA review for those projects by SCE.

Natural Gas Demands

Forecast natural gas demands resulting from General Plan Update buildout, in therms per year,¹¹ are:

- 2012: 3.50 million

¹⁰ Uses 2035 population and employment estimates for Town of Yucca Valley from SCAG 2012 Regional Transportation Plan growth forecast.

¹¹ One therm is equivalent to 97.1 cubic feet of natural gas.



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- 2020: 3.71 million
- 2035 SCAG:¹² 4.10 million
- Full buildout: 11.49 million

Total supplies of natural gas available to SoCalGas are expected to remain stable at 3.875 billion cubic feet per day (bcfd), that is, 14.57 billion therms per day, between 2015 and 2030 (CGEU 2012). SoCalGas expects to have adequate natural gas supplies to meet demands from General Plan Update buildout, and buildout would not require SoCalGas to obtain new or expanded natural gas supplies.

5.15.5.4 Relevant General Plan Update Policies

Land Use Element

Balanced Land Uses

- LU 1-1 Encourage infill development to maximize the efficiency of existing and planned public services, facilities, and infrastructure.
- LU 1-3 Require new projects to pay their fair share cost of, or make necessary improvements to, public facilities, infrastructure and services that are impacted by the new demands generated by new development.
- LU 1-16 Require high quality building design, property maintenance, amenities for pedestrian access, and adequate circulation, utilities, and infrastructure.

Open Space and Conservation Element

Energy Resources

- OSC 9-1 Develop, promote, and implement long-term energy efficiency and demand management policies and standards for Town facilities, vehicles, and new development.
- OSC 9-2 Support the development of renewable energy generation within the Town, provided that significant adverse environmental impacts associated with such development can be successfully mitigated.
- OSC 9-3 Encourage the use of clean and/or renewable alternative energy sources for transportation, heating, and cooling and construction.
- OSC 9-4 Encourage the reduction and recycling of household and business waste.
- OSC 9-5 Ensure that any planned construction, demolition, addition, alteration, repair, remodel, landscaping, or grading projects divert all reusable, salvageable, and recyclable debris from landfill disposal.
- OSC 9-6 Promote use of ride-sharing and mass transit as means of reducing transportation-related energy demand.

¹² Uses 2035 population and employment estimates for Town of Yucca Valley from SCAG 2012 Regional Transportation Plan growth forecast.

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- OSC 9-7 Encourage development proposals to participate in state, federal, and/or regional solar rebate and incentive programs.
- OSC 9-8 Encourage new construction provided for in whole or in part with Town funds, to incorporate passive solar design features, such as daylighting and passive solar heating, where feasible.
- OSC 9-9 Promote building design and construction that integrates alternative energy systems, including but not limited to solar, thermal, photovoltaics and other clean energy systems.

Greenhouse Gases

- OSC 11-1 Continue to participate in and support the provisions of the San Bernardino Regional Greenhouse Gas Reduction Plan.
- OSC 11-2 Encourage new development to be designed to take advantage of the desert climate through solar orientation, shading patterns, and other green building practices and technologies.
- OSC 11-3 Maintain General Plan Land Use, Housing, and Transportation goals and policies to be aligned with, support, and enhance SCAG's Regional Transportation Plan and Sustainable Communities Strategy to achieve reductions in GHG emissions.

Implementation Actions

Land Use Element

- LU2 Amend Development Code to require new residential subdivisions to have pads above the adjacent street grade. All lots must drain to the street frontage of the individual lot, unless otherwise approved by the Town Engineer.
- LU3 Prioritize infrastructure improvements in areas with existing and expected concentrated forms of development, and consistent with the phasing of the Wastewater Treatment and Water Reclamation Plan developed by the Hi-Desert Water District.

Open Space and Conservation Element

- OSC 23 Continue to support the Hi-Desert Water District's groundwater recharge program, while protecting recharge sites from potential impacts of proposed development.
- OSC 24 Track data collected by HDWD's groundwater quality data monitoring program.
- OSC 25 Continue to work with HDWD in the pursuit of outside financial resources to reduce the costs to property owners for wastewater system implementation.
- OSC 26 Update water efficient-landscape guidelines, which address the use of drought-tolerant plant materials and irrigation standards in the Development Code in accordance with State law.
- OSC 27 Provide development standards and guidelines for the construction of on-site storm water retention facilities that are consistent with community design standards and local and regional drainage plans.



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OSC 36	Participate in the regional energy management and conservation efforts and encourage the expanded use of energy efficient and alternative fuels, buses with bike racks, and other system improvements including infrastructure for alternative energy vehicles that enhance overall energy efficiency and conservation.
OSC 37	Coordinate with the County to review land use applications proposing to develop solar or windfarms to protect view sheds and scenic resources of the community.
OSC 38	Continue the Town's efforts on community participation in reducing, reusing, and recycling household and business waste.
OSC 39	Provide informational materials and non-Town incentive program information to residents regarding available alternative energy and energy efficiency programs and rebates.
OSC 40	Evaluate the Town's ability to create a program to waive or reduce the permit fees on solar installation projects and promote state, federal, and private rebate programs.
OSC 45	Establish a goal for solar installations on new and existing homes as well as new commercial/industrial development to be achieved before 2020.
OSC 46	Pursue partnerships with other governmental entities and with private companies and Southern California Edison to establish incentive programs for renewable energy.

5.15.5.5 Existing Regulations

State

- Assembly Bill 32, the Global Warming Solutions Act (2006)
- CARB 2008 Scoping Plan
- 2013 Building and Energy Efficiency Standards, California Energy Commission
- California Code of Regulations, Title 24, Part 11: California Green Building Standards Code
- California Code of Regulations, Title 20, Sections 1601-1608: 2006 Appliance Efficiency Regulations

5.15.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, impact 5.15-5 would be less than significant.

5.15.5.7 Mitigation Measures

No mitigation is required.

5.15.5.8 Level of Significance After Mitigation

Impacts would be less than significant.

5.15.6 References

Ban, Mark (Assistant General Manager, Water Resources and Operations). 2013, June 6. E-mail. Hi-Desert Water District.

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- Bighorn-Desert View Water Agency (BDVWA). 2011, August. Ames Valley Water Basin Monitoring Program. <http://www.bdvwa.org/2011%20Ames%20Valley%20Water%20Basin%20Monitoring%20Report.pdf>.
- California Air Resources Board (CARB). 2008, October. Climate Change Proposed Scoping Plan, a Framework for Change.
- California Department of Resources, Recycling, and Recovery (CalRecycle). 2013a, May 8. Facility/Site Summary Details: Landers Sanitary Landfill. <http://www.calrecycle.ca.gov/SWFacilities/Directory/36-AA-0057/Detail/>.
- . 2013b, May 8. Landfill Tonnage Reports. <http://www.calrecycle.ca.gov/SWFacilities/Landfills/Tonnages/>.
- . 2013c. Jurisdiction Disposal and Alternative Daily Cover (ADC) Tons by Facility. <http://www.calrecycle.ca.gov/lgcentral/Reports/DRS/Destination/JurDspFa.aspx>.
- . 2013d. Jurisdiction Diversion/Disposal Rate Summary (2007–Current). <http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionPost2006.aspx>.
- . 2013e, January 28. Mandatory Commercial Recycling. <http://www.calrecycle.ca.gov/Recycle/Commercial/>.
- California Department of Water Resources (CDWR). 2004, February 27. Ames Valley Groundwater Basin. http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/7-16.pdf.
- . 2003, October. California’s Groundwater: Bulletin 118. http://www.water.ca.gov/pubs/groundwater/bulletin_118/california%27s_groundwater__bulletin_118_-_update_2003_/bulletin118_entire.pdf.
- California Energy Commission (CEC). 2013, May 10. California Electrical Energy Generation. http://energyalmanac.ca.gov/electricity/electricity_generation.html.
- . 2012a, June. California Energy Demand 2012 Final Forecast. <http://www.energy.ca.gov/2012publications/CEC-200-2012-001/CEC-200-2012-001-CMF-V2.pdf>.
- . 2012b, August 28. California Power Plants. http://www.energy.ca.gov/maps/powerplants/Power_Plants_Statewide.pdf.
- . 2012c, October 25. California Transmission Lines and Substations: South. http://www.energy.ca.gov/maps/infrastructure/3P_Low.pdf.
- . 2011a, October 25. California Energy Utility Service Areas. http://www.energy.ca.gov/maps/serviceareas/Electric_Service_Areas_Detail.pdf.
- . 2011b, October 25. California Natural Gas Pipelines. http://www.energy.ca.gov/maps/infrastructure/Natural_Gas_Pipelines.pdf.
- California Gas and Electric Utilities (CGEU). 2012, July. California Gas Report. http://www.socalgas.com/regulatory/documents/cgr/2012%20CGR_Final.pdf.
- Colorado River Basin Regional Water Quality Control Board (CRBRWQCB). 2011, May. Staff Report in Support of a Basin Plan Amendment to Prohibit the Discharge of Wastewater into the Ground from Septic Systems in



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- the Town of Yucca Valley.
http://www.waterboards.ca.gov/rwqcb7/water_issues/programs/basin_planning/docs/yuccavalley/yv_staff_rpt.pdf.
- Hi-Desert Water District (HDWD). 2012a, December 20. Annual Report of the Warren Valley Basin Watermaster.
<http://www.hdwd.com/LinkClick.aspx?fileticket=0TJu0H9lTyM%3d&tabid=170&mid=811>.
- . 2012b, June. Wastewater Treatment & Water Reclamation Project: Questions & Answers.
http://www.yucca-valley.org/pdf/projects_initiatives/wastewater_QA.pdf.
- . 2009, June. Initial Study / Environmental Assessment: Hi-Desert Water District Water Reclamation Facility, Wastewater Treatment Plant and Sewer Collection System Project. Prepared by Tom Dodson & Associates.
<http://www.hdwd.com/LinkClick.aspx?fileticket=G9sz3Qcew%2f4%3d&tabid=240&mid=692>.
- Kennedy-Jenks Consultants. 2011, June 27. Final 2010 Urban Water Management Plan for the Hi-Desert Water District (HDWD). <http://www.hdwd.com/LinkClick.aspx?fileticket=dUTe%2bDg6kBQ%3d&tabid=180>.
- MWH, Inc. 2007, July. Water System Master Plan for the Hi-Desert Water District.
<http://www.stopyuccamesaannexation.org/HDWD/12.%20Water%20System%20Master%20Plan%20July%202007.pdf>.
- . 2009a, January. Water Reclamation Facility Preliminary Design Report. Volume 1: Report.
http://www.sbcounty.gov/lafco/items/201002/item_14_2c.pdf.
- . 2009b, January. Sewer Master Plan for Hi-Desert Water District.
<http://www.hdwd.com/LinkClick.aspx?fileticket=dRAYC4Z8mzM%3D&tabid=136&mid=692>.
- Richardson, Rex (Solid Waste Programs Administrator). 2013, April 30. Phone call. San Bernardino County Solid Waste Management Division.
- Solid Waste Management Division (SWMD). 2013, May 8. Waste Disposal Sites. County of San Bernardino.
<http://www.sbcounty.gov/dpw/solidwaste/sites.asp>.
- Southern California Edison (SCE). 2012, April 30. Southern California Edison Backgrounder.
http://www.edison.com/files/SCE_PROFILE.pdf.
- John M. Tettemer & Associates. 1999, June. Master Plan of Drainage for the Town of Yucca Valley.
http://www.yucca-valley.org/departments/drainage_plan.html.
- Vidaver, David (Electric Generation System Program Specialist). 2013, May 10. Email. California Energy Commission.