

4. Environmental Setting

4.1 INTRODUCTION

The purpose of this section is to provide, pursuant to provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a “description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and a regional perspective.” The environmental setting will provide a set of baseline physical conditions from which the lead agency will determine the significance of environmental impacts resulting from the proposed project. This section provides an overview of the environmental setting; more detailed descriptions of existing conditions for each resource are provided in Section 5, *Environmental Analysis*.

4.2 REGIONAL ENVIRONMENTAL SETTING

4.2.1 Regional Location

Spring Trails is in unincorporated San Bernardino County on the northern edge of the City of San Bernardino and in the foothills of the San Bernardino Mountains. The site is approximately 1.5 miles east of the unincorporated community of Devore and the junction of Interstate 215 (I-215) and I-15. Spring Trails is bounded by the San Bernardino National Forest on three sides and Verdemon on the southern side. Refer to Figure 3-1, *Regional Location*, in Chapter 3, *Project Description*.

4.2.2 Regional Climate

Temperature and Precipitation

The annual average temperature varies little throughout the 6,645-square-mile South Coast Air Basin (SoCAB), ranging from the low 60s to the high 80s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The Western Regional Climate Center (WRCC) maintains historical climate information for the western United States. Its closest meteorological monitoring station to the project site is the Lytle Creek PH Monitoring Station (ID No. 045215), approximately 4.5 miles west of the site. According to the WRCC, the average maximum temperature in the local vicinity is 93.0°F in July. The average minimum temperature is reported at 42.8°F in January and February (WRCC 2009).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages around 33.14 inches per year in the project area (WRCC 2009). Annual average humidity is 70 percent along the coast and 57 percent in the eastern portions of the SoCAB.

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.



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Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

4.2.3 Regional Planning Considerations

An air basin generally has similar meteorological and geographic conditions throughout. California is geographically divided into 15 air basins, and the City of San Bernardino is in the SoCAB. This air basin contains the largest urban area in the western United States. It is a 6,600-square-mile coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SoCAB includes all of the nondesert portions of San Bernardino, Los Angeles (non-Antelope Valley portion), and Riverside Counties and all of Orange County.

The South Coast Air Quality Management District (SCAQMD) and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the air quality management plan (AQMP) for the SoCAB, a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. Every three years since 1979, SCAQMD has prepared a new AQMP with updates to the previous plan and a 20-year horizon. The most recent comprehensive plan was adopted on June 1, 2007, and builds upon the approaches for attainment in the 2003 AQMP. The 2007 AQMP incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. It proposes attainment demonstration of the federal PM_{2.5} standards through a more focused control of SO_x, directly emitted PM_{2.5}, NO_x, and volatile organic compounds (VOC) by 2015. The eight-hour ozone control strategy builds upon the PM_{2.5} strategy, augmented with additional NO_x and VOC reductions to meet the standard by 2024, assuming a bump-up (extended attainment date) is obtained.

The AQMP provides local guidance for the State Implementation Plan, which provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards. Areas that meet ambient air quality standards are classified as attainment areas; areas that do not meet these standards are in nonattainment. Severity classifications for nonattainment are marginal, moderate, serious, severe, and extreme. The proposed project's consistency with the applicable policies and standards of the AQMP is analyzed in detail in Section 5.2, *Air Quality*.

Southern California Association of Governments

The City of San Bernardino is in a six-county metropolitan region composed of Orange, Los Angeles, Ventura, Riverside, San Bernardino, and Imperial Counties. SCAG is the federally recognized metropolitan planning organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs.

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As the southern California region's MPO, SCAG cooperates with the SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. San Bernardino and its jurisdictions constitute the San Bernardino County Subregion of the SCAG region, governed by the San Bernardino Associated Governments (SANBAG). SCAG has developed plans to achieve specific regional objectives. The plans most applicable to the proposed project are discussed below.

Regional Comprehensive Plan

The 2008 Regional Comprehensive Plan (RCP) is a major advisory plan prepared by SCAG that addresses important regional issues like housing, traffic/transportation, water, and air quality. The RCP serves as an advisory document to local agencies in southern California for their information and voluntary use for preparing local plans and handling local issues of regional significance.

The RCP presents a vision of how southern California can balance resource conservation, economic vitality, and quality of life. The RCP identifies voluntary best practices to approach growth and infrastructure challenges in an integrated and comprehensive way. It also includes goals and outcomes to measure our progress toward a more sustainable region. The proposed project's consistency with the advisory policies of the 2008 RCP is analyzed in detail in Section 5.8, *Land Use and Planning*.

Regional Transportation Plan

SCAG has also adopted the Regional Transportation Plan (RTP) to help coordinate development of the region's transportation improvements. On May 8, 2008, SCAG adopted the 2008 RTP, *Making the Connections*, a \$531.5 billion plan that emphasizes the importance of system management, goods movement, and innovative transportation financing. It provides a regional investment framework to address the region's transportation and related challenges, and looks to strategies that preserve and enhance the existing transportation system and integrate land use into transportation planning. The 2008 RTP is based on Compass Blueprint 2% Strategy land use projections, which are not consistent with San Bernardino County and City General Plan Land Use Elements. The proposed project's consistency with the applicable RTP policies is analyzed in detail in Section 5.8, *Land Use and Planning*.



Compass Blueprint 2% Strategy

In 2004, SCAG adopted the 2% Strategy, which is the part of the 2004 regional growth forecast policy that attempts to reduce emissions and increase mobility through strategic land use changes. Through extensive public participation and land use and transportation modeling and analysis, the program has resulted in a plan that identifies strategic growth opportunity areas (2% Strategy Opportunity Areas), which make up roughly 2 percent of the land area in our region. These are the areas where the 2% Strategy will help cities and counties reap the maximum benefits from regional planning implemented in cooperation and partnership with the local community. The 2% Strategy is a guideline for how and where the vision for southern California's future can be implemented toward improving mobility, livability, prosperity, and sustainability for local neighborhoods and their residents. Goals for the 2% Strategy Opportunity Areas include locating new housing near existing jobs and new jobs near existing housing, encouraging infill development, promoting development with a mix of uses, creating walkable communities, providing a mix of housing types, and focusing development in urban areas.

4.3 LOCAL ENVIRONMENTAL SETTING

The proposed project site is located in unincorporated San Bernardino County, in the City of San Bernardino's sphere of influence (SOI), to the northwest of the City.

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4.3.1 Location and Land Use

The project site is in the County of San Bernardino, abutting the northern edge of the City of San Bernardino in the foothills of the San Bernardino Mountains. The site is approximately 1.5 miles east of the unincorporated community of Devore and 2 miles from the junction of Interstate 215 (I-215) and I-15. The site is north of Verdemon and approximately one-third mile northwest of the intersection of Meyers Road and Little League Drive. Spring Trails is bounded by the San Bernardino National Forest on three sides and the Verdemon area of the City of San Bernardino on the southern side. The northern portion of the project site is in the San Bernardino National Forest, which is typically undisturbed natural open space. See Figure 4-1, *General Project Location*.

The project site is vacant with the exception of one single-family residence in the western portion, south of Cable Canyon. Vegetation on the site has substantially recovered from several fires and again supports a diversity of habitat types. Access to four of the parcels is from Meyers Road, with the remaining two obtaining access from Martin Ranch Road prior to entering the project site. The project site is within the City of San Bernardino's unincorporated sphere of influence (SOI) and will be annexed into the City. An adjacent 26.4-acre parcel of land, also located within the City's unincorporated sphere of influence, is being annexed from San Bernardino County to the City. The 26.4 acre annexation area borders the Spring Trails project site on the southwest and consists of six rural residential lots, four of which are occupied with residences and related structures. There is no planned development for this adjacent area and it is not part of the project. The annexation of this area would prevent the creation of a county "island" after the Spring Trails project site is annexed to the City. The location of this 26.4-acre area is identified in Figure 4-6.

Three 115-kilovolt Southern California Edison (SCE) transmission lines traverse the western portion of the site from north to south. SCE also has an access easement over the project site to service these transmission lines.

Surrounding Land Uses

The general vicinity of the site is rural in character, and the northerly portion of the site is within the San Bernardino National Forest, which is typically undisturbed natural open space. The area abutting the southwesterly and southerly boundaries is characterized by estate residential development along Martin Ranch Road and Meyers Road. Development near Little League Drive and Belmont Avenue consists of the Belmont Elementary School and tract development in the Low Residential density (up to three dwelling units per acre). Photographs of the site and surrounding land uses are included in Figures 4-2 through 4-5.

4.3.2 Biological Resources

The Spring Trails project site has been the subject of surveys and assessments since 1998 (Appendices D1 through D16). A comparison of current conditions with those reported in earlier assessments demonstrates that vegetation and wildlife on the project site have remained relatively stable over the last decade, despite the occurrence of one major and one minor fire event during that time. Vegetative composition has remained essentially unchanged, though some of the species and communities are less fully developed than before the 2003 and 2007 fires. The project site contains a variety of plant communities and vegetation types. Seventeen different plant communities have been identified on the site, and a brief description of each community, the plant species common to these communities and the current condition of the habitat is provided in Section 5.3.

General Project Location



General view looking north.

— Site Boundary



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Photo Viewpoints



--- Site Boundary



Photo Viewpoints and Viewshed

0 4,600
Scale (Feet)



Source: Google Earth Pro 2009

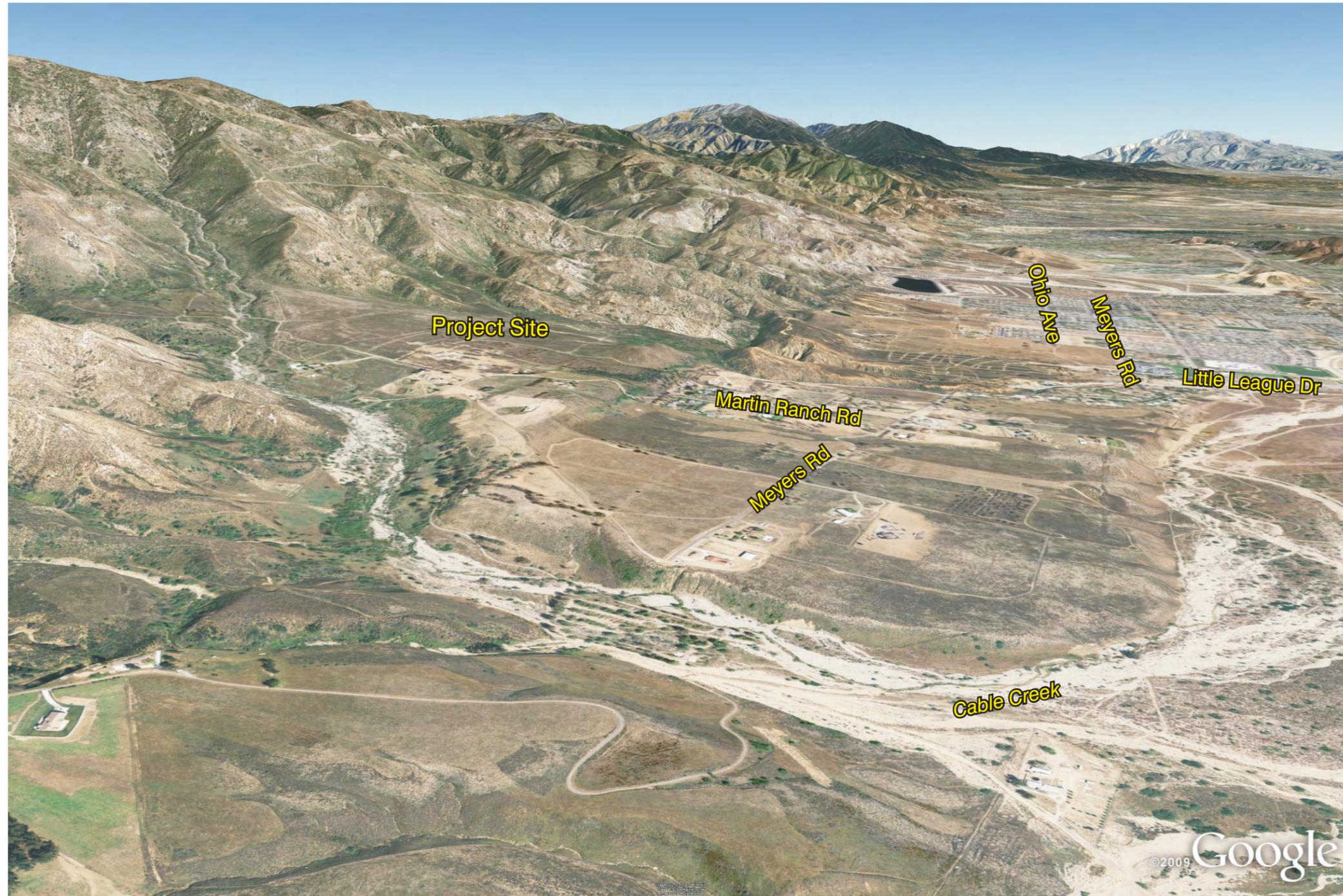
Spring Trails Draft EIR

The Planning Center • **Figure 4-2**

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Existing Site View 1



View of project from northwest. Viewpoint is near Deercrest Drive on eastern edge of community of Devore with a east-facing viewshed.



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Existing Site View 2



View of project site from south. Approximate viewpoint is near intersection of Meyers Road and Meyers Court, with northerly viewshed.

— Site Boundary



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Existing Site View 3



View of project site from south. Viewpoint is at southeast corner of Al Guhin Park with a northerly viewshed.

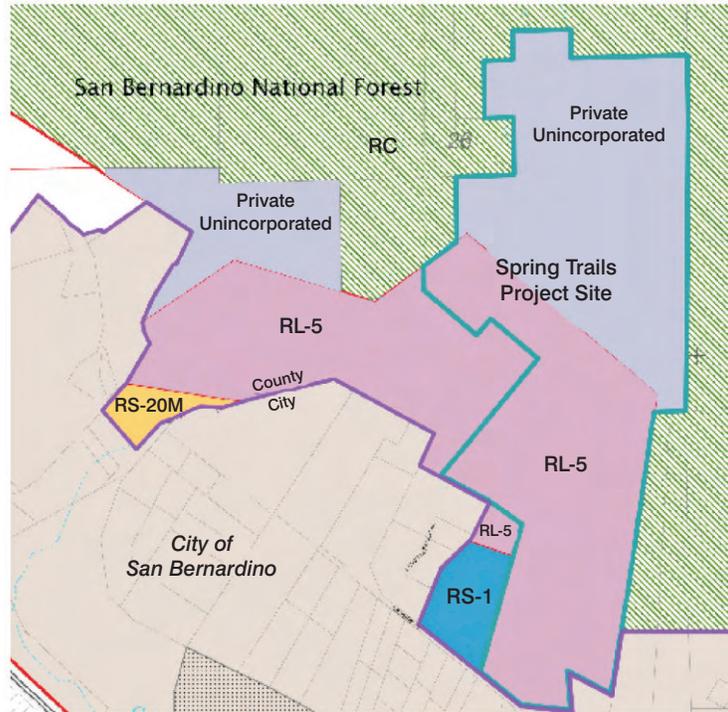


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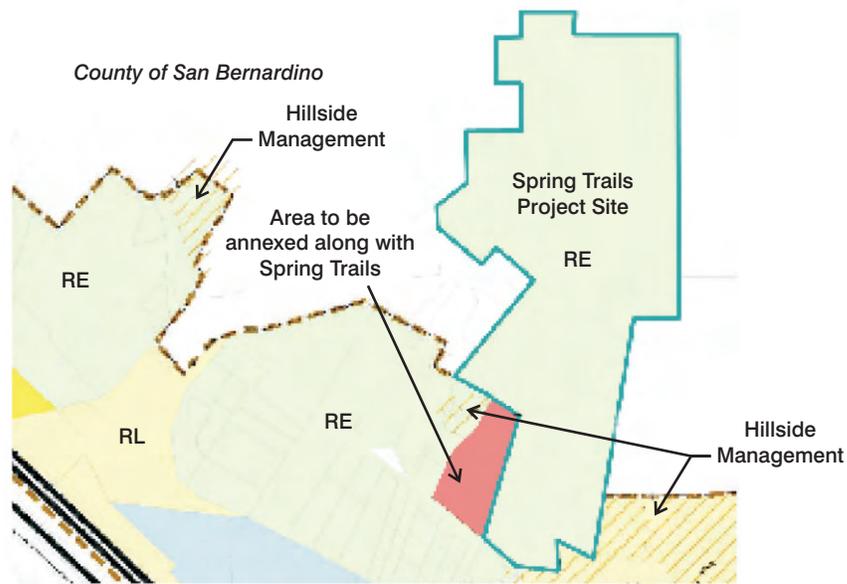
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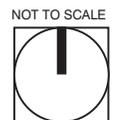
Existing Land Use Designations



County of San Bernardino Land Use



City of San Bernardino Land Use



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A number of mammal species have been either directly observed or their presence deduced by diagnostic sign (track, scat, burrows, etc.), and several bird species have been directly observed on the site or have been determined to be present based on vocalizations. Wildlife species either confirmed to be on the site or with a high probability of occurrence on the site have also been highly stable. So far as is known, no sensitive species confirmed to be present on the site during earlier survey work have been extirpated. Conversely, no species confirmed to be absent from the site or with a low probability of occurrence on the site have been found to be present. This level of stability is not particularly surprising due to the vigorous reestablishment of vegetation on the site and the subsequent reestablishment of suitable habitats following the fire events.

4.3.3 Climate and Air Quality

The project site is in the SoCAB. Basinwide conditions are characterized as warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes, and moderate humidity. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. The average maximum temperature in the local vicinity is 93.0°F in July. The average minimum temperature is reported at 42.8°F in January and February (WRCC 2009).

The topography and climate of southern California combine to produce unhealthful air quality in the SoCAB. The mountain ranges to the east affect the diffusion of pollutants by inhibiting their eastward transport. Additionally, temperature inversions, light winds, shallow vertical mixing, a humid to semiarid climate, and extensive sunlight, in conjunction with a shallow marine layer that hinders horizontal and vertical dispersion of air pollutants, all combine to create degraded quality, especially in the inland valleys. Air quality in the SoCAB generally ranges from fair to poor, similar to air quality in most of coastal southern California. The entire SoCAB experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

The average maximum temperature within the local vicinity of the project site is 93.0°F in July. The average minimum temperature is reported at 42.8°F in January and February. In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages around 33.14 inches per year in the project area.

Please refer to Section 5.2, *Air Quality*, and Appendix C of this DEIR for further information concerning existing air quality conditions, an analysis of the project's impacts on local air quality, and an evaluation of consistency with the regional AQMP. Global climate change and the project's impacts on climate change are discussed further in Section 5.16, *Greenhouse Gas Emissions*.

4.3.4 Cultural Resources

Historic and Archeological Resources

The cultural report prepared for the project area reports fourteen resources in the vicinity of the project; however, only eight are within the project boundaries. Only one site, a historical ranch complex, meets CEQA significance criteria. In addition, two other resources have been noted in previous reports but have not been recorded. One site, a spring, is known to be in the project area but vegetation prevented direct observation. A small private cemetery has also been reported by local residents, but two separate surveys failed to locate any remnants of it.



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Native American Heritage Commission

The Native American Heritage Commission (NAHC) was consulted to determine if any known sacred lands exist in or near the project area. The NAHC responded that no sacred lands are known in the vicinity of the project site; however, it recommended that seven tribes or individuals be contacted for further information.

Paleontological Resources

On January 23, 2009, and February 19, 2009, Cogstone conducted a paleontology and sediment field assessment for the original areas mapped and for the expanded road areas. Although there are several sedimentary formations that are old enough to contain the remains of extinct Pleistocene animals, all sediments observed onsite were extremely coarse. Materials were primarily sands and gravels up to large cobbles (12.8 cm–25.6 cm) and even boulders (> 25.6 cm). Sediment oxidation in these older deposits ranged from light brown to medium red. Typically in deposits of this type, the fossils deposited are either crushed by the cobbles in the stream channels or are weathered to nothing on the surfaces of the alluvial fans without being buried. Although there are several sedimentary formations that are old enough to contain the remains of extinct Pleistocene animals, these sediments are so coarse that they are not conducive to the preservation of significant fossil resources.

Refer to Section 5.4, *Cultural Resources*, and Appendix E for more information on the historical, archeological, and paleontological setting of the project site and an analysis of the project's environmental impacts on the site.

4.3.5 Geology and Landform

Most of the site consists of a southwest-sloping alluvial terrace into which canyons have been cut on the west and east sides of the site: Cable Canyon and Meyers Canyon, respectively. In the south-central part of the site the San Andreas Fault Zone forms a northwest-trending topographic break. The southeast and northern parts of the site are relatively steep hillsides. Slopes onsite range from about 10 to 15 percent toward the southwest in the central and southwest portions of the site, to 15 to 70 percent with steeply incised drainage areas on the balance of the site. Elevations onsite range from 2,010 feet above mean sea level (amsl) in the southeast portion of the site to 3,540 feet amsl in the northeastern part of the site. The San Andreas Fault is an active fault extending from offshore of Mendocino County southwestward several hundred miles to the Mexican border (Harden 2004). The San Bernardino Segment of the San Andreas Fault passes through the project site.

Geologic units onsite include outcrops of the metamorphic rocks schist and gneiss in the northern part of the site and older (late Pleistocene to early Holocene) alluvial deposits in the central and southwest parts of the site. The alluvial deposits consist of boulders, cobbles, and gravels in a matrix of silty sand, sand, and sandy silt, and are late Pleistocene to Holocene in age.¹ Refer to Section 5.5, *Geology and Soils*, and Appendices G, H1, and H2 for additional information on the site's geology.

4.3.6 Hazards

Wind Hazards

The project site is located in the foothills of the San Bernardino Mountains in an area that periodically experiences high wind velocities. The City of San Bernardino General Plan has designated the project site as

¹ The Pleistocene Epoch extends from roughly 10,000 years before present (ybp) to about 1.8 million ybp, and the Holocene Epoch extends from the present to about 10,000 ybp.

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being in a high wind area. Winds in this area are most often driven by the dominant land breeze circulation system. Regional wind patterns are dominated by daytime onshore wind generated by the differences in temperature between the inland deserts and the cold water of the Pacific Ocean. The most significant wind hazards occur at the canyon mouths and valleys extending downslope from the San Bernardino Mountains. The highest velocities are associated with downslope canyon and Santa Ana winds, which have been measured at 90 to 100 miles per hour.

Fire Hazards

The project site is in the Foothill Fire Zones Overlay District, as designated by the City of San Bernardino. The purpose of this district is to mitigate the spread of fire, minimize property damage, and reduce risks to public health and safety. The overlay district consists of three foothill fire zones, which have different degrees of hazard based on slope, type of fuel present, and natural barriers.

- **Fire Zone A (Extreme Hazard):** Fire Zone A is determined based on slope. Fire Zone A includes areas with slopes of 30 percent or greater.
- **Fire Zone B (High Hazard):** Fire Zone B is also determined based on slope. Fire Zone B includes areas with slopes between 15–30 percent.
- **Fire Zone C (Moderate Hazard):** Fire Zone C includes those areas with slopes of 0 to 15 percent.
- **Fire Zone C, Abutting Wildlands:** Fire Zone C, Abutting Wildlands, is defined as those lots on the perimeter of a tract that are adjacent to wildlands.

The project site has approximately 121 acres of Fire Zone A, 112 acres in Fire Zone B, and 119 acres in Fire Zone C.

The project site has been exposed to wildfire due to the steep terrain, highly flammable chaparral vegetation of the foothills of the San Bernardino Mountains, and high winds. The California Department of Forestry and Fire Protection (CAL FIRE) has records of wildland fires dating to the beginning of the 20th century on the proposed project site. Large fires continue to occur at all times of the year in areas that have receptive fuel beds, in some cases burning several times every few years. The occurrence of large fires also corresponds to periods of extremely high wind conditions.

In November 1980, the Panorama Fire burned through the site, leaving only the mature eucalyptus trees and vegetation in the canyon areas. In the fall of 2003, the Verdmont/Devore area, including the proposed project site, was burned by the Old Fire that started in Old Waterman Canyon in north San Bernardino and traveled west to the I-15 /I-215 interchange, immediately west of the project vicinity. The entire Spring Trails site was burned, with the exception of the extreme northern portion of Cable Canyon, altering the conditions of the site. Wildfires affected these same areas again in October 2007 when a fire at Martin Ranch Road and Meyers Road burned 123 acres (CAL FIRE 2007b). Refer to Section 5.6, *Hazards and Hazardous Materials*, and Appendices G, H1, and H2 for additional information on site hazards.

4.3.7 Hydrology

The project site is tributary to Cable Canyon and Cable Creek; Cable Canyon passes through the site. Existing drainage from the site is by surface flow. Cable Canyon and Cable Creek are in the Santa Ana River Watershed; Cable Creek is tributary to Reach 4 of the Santa Ana River via three intermediate watercourses including Lytle Creek Wash. Reach 4 of the Santa Ana River and Lytle Creek Wash are each listed on the



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2006 List of Water Quality Limited Segments, prepared pursuant to Section 303(d) of the Water Quality Act, as impaired by pathogens.

The project site lies over the Bunker Hill Groundwater Basin that underlies much of the San Bernardino Valley. Groundwater levels beneath the site are generally greater than 50 feet below ground surface (bgs). Groundwater was found at 20 feet bgs in two borings done in a 2000 geotechnical investigation in an isolated area in the eastern part of the site along the northeast side of the San Andreas Fault. Refer to Section 5.7, *Hydrology and Water Quality*, and Appendix I for additional information on site hydrology.

4.3.8 Noise

Community noise levels are measured in terms of the A-weighted decibel (dBA). A-weighting is a frequency correction that correlates overall sound pressure levels to the frequency response of the human ear. The noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL scale represents a time-weighted, 24-hour average noise level based on the A-weighted decibel. The primary source of existing noise generated within the project site is from transportation noise generated by I-215, approximately 0.70 mile to the south, and Meyers Road (Martin Ranch Road). Stationary sources of noise are from the nearby residential uses (heating ventilation and air conditioning systems, landscaping equipment, etc.). Please refer to Section 5.10, *Noise*, in this DEIR for further information concerning existing noise conditions in the project area and an analysis of this project's impacts on the local noise environment.

4.3.9 Scenic Features

Spring Trails is bounded by the San Bernardino National Forest on three sides and Verdemont on the southern side. The northern portion of the project site is in the San Bernardino National Forest, which is typically undisturbed natural open space.

The project site is relatively undisturbed with the exception of one single-family residence in the western portion, south of Cable Canyon, and consists of canyons and steep hillsides with gently sloping alluvial benches in between. The elevation of the site ranges from approximately 2,010 feet amsl at its southern boundary to approximately 3,540 feet amsl at the northern boundary, a difference of 1,530 feet.

According to the California Scenic Highway Mapping System of the California Department of Transportation, the project site is not on or near a major state-designated scenic highway (Caltrans 2009). Goal OS 5, Policy OS 5.3 of the County of San Bernardino General Plan designates I-15 from the junction with I-215 northeast to the Nevada state line, except all incorporated areas, as a County Scenic Route. The project site is southeast of this intersection and is not visible from I-15.

4.3.10 Traffic and Transportation

Existing Transportation Networks

Roadway Network

Regional access to the project site is provided by I-215 and I-15. Local access is provided by various roadways in the vicinity of the site. Surrounding east–west roadways include Meyers Road, Belmont Avenue, Irvington Avenue, an unnamed frontage road, and Kendall Drive. North–south roadways near the project site include Glen Helen Parkway, Little League Drive, Magnolia Avenue, and Palm Avenue. Little League Drive, Palm Avenue, and Kendall Drive are designated secondary arterial roads in the San Bernardino General Plan.

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Meyers Road, Belmont Avenue, Irvington Avenue, the frontage road, and Magnolia Avenue are designated collector streets in the San Bernardino General Plan. Figure 5.14-1, *City of San Bernardino Circulation Plan*, in Chapter 5.14, *Transportation and Traffic*, shows the street network found in the City of San Bernardino General Plan Circulation Element.

Public Transit and Alternative Transportation Networks

The City of San Bernardino is serviced by the Omnitrans bus network and the Metrolink regional railway. The nearest bus stop serviced by Omnitrans is at Ohio Street and Palm Avenue, a little over two miles walking distance from the project site. A park and ride lot and station for Omnitrans' sbX bus rapid transit service is planned near the intersection of Palm Avenue and Kendall Drive. The Metrolink Station is near the intersection of West Third Street and North K Street and is serviced by the Omnitrans bus service.

Alternative transportation is supported by a series of multipurpose and Class I through Class III bicycle lanes throughout the City. The bicycle and trail network is shown in Figure 5.14-4, *Multipurpose Trails and Bicycle Routes*, in Chapter 5.14, *Traffic and Transportation*. The nearest dedicated alternative transportation route to the project site is the Foothills Trail, which traverses northern San Bernardino and continues down Magnolia Avenue, approximately two miles walking distance from the project site.

Existing Levels of Service

Project area intersections currently operate at levels of service of D or better. An LOS of D or better is considered acceptable by the San Bernardino General Plan. The intersections included in the existing conditions for level of service are:

- Little League Drive at Meyers Road
- Little League Drive at Belmont Avenue
- Little League Drive at Frontage Road
- Little League Drive at Kendall Drive
- Magnolia Avenue at Belmont Avenue
- Palm Avenue at Belmont Avenue
- Palm Avenue at Irvington Avenue
- Palm Avenue at Kendall Drive
- Palm Avenue at I-215 NB Ramps
- Palm Avenue at I-215 SB Ramps

The project would also contribute traffic to both the I-215 and I-15. Acceptable freeway LOS is E or better, as established by the San Bernardino County Congestion Management Plan. The segment of I-215 analyzed for Spring Trails is the segment between Palm Avenue and the I-15. This section of the I-215 currently operates at a level of service of B to C for AM and PM peak hours (SANBAG 2003). The section of I-15 analyzed for Spring Trails is the section between Sierra Avenue and I-215, which also currently operates at an LOS of B to C during AM and PM peak hours (SANBAG 2003).

Please refer to Section 5.14, *Traffic and Transportation*, and Appendix K of this DEIR for more information on the existing traffic setting and an analysis of traffic impacts.



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4.3.11 Public Services and Utilities

Water

Potable and recycled water would be supplied to the proposed project area by the City of San Bernardino Municipal Water Department (SBMWD). SBMWD obtains water mainly from the Bunker Hill Groundwater (BHG) Basin and provides service to the City of San Bernardino and surrounding unincorporated areas. It has a service area of 45 square miles, 151,000 customers, 551 miles of pipeline, 4,000 fire hydrants, 4 treatment plants, 32 storage facilities with a combined capacity of 100 million gallons, 27 chlorinated facilities, and 66 booster pumps. The service area covers portions of the City of San Bernardino and outlying undeveloped areas, including parkland and flood protection areas. Population within the service area is expected to increase from 173,359 in 2005 to 186,454 in 2030 (SBMWD 2005).

The main planning document used by SBMWD to guide infrastructure planning and water supply decision-making is the urban water management plan (UWMP). SBMWD is required by the Urban Water Management Planning Act to develop a UWMP that is to be updated every five years. The most recent UWMP was released in 2005 and provides guidance for the planning period between 2000 and 2020.

The SBMWD also coordinates with other water utility agencies in the San Bernardino Valley, as required by the Municipal Water District Act, and enacted through San Bernardino Valley Municipal Water District (SBVMWD), a State Water Project contractor for the San Bernardino Valley, including the BHG Basin. SBMWD must coordinate its plans with SBVMWD with respect to groundwater management issues. SBMWD also has an agreement with SBVMWD for delivering treatment plant discharges to the Santa Ana River to satisfy water rights of downstream users.

Potable Water

Groundwater is pulled from the BHG Basin through 57 wells that range in depth from 50 to 1,300 feet. Water is pumped from these wells at rates from 50 to 3,500 gallons per minute (SBMWD 2005). The water is distributed throughout the service area through a system of pipelines, storage reservoirs, pumping stations, hydroelectric generating stations, manual and automatic control valves, fire hydrants, and water meters throughout 19 individual pressure zones. Pressure zones are at elevations of 1,249 to 2,100 feet amsl. The nearest reservoir to the project site is the Meyers Canyon Reservoir in the 2,100-foot pressure zone, in the northern portion of the community of Verdemon.

Nonpotable Water

SBMWD operates the Margaret H. Chandler Water Reclamation Plant (WRP), which treats wastewater to secondary treatment levels and has a capacity of 33 million gallons per day. This allows it to meet National Pollution Discharge Elimination Standards but it is not used as nonpotable water. After being treated to secondary standards, a portion of the effluent from WRP is sent to the Rapid Infiltration Extraction Tertiary Treatment Facility in the City of Colton. This facility is jointly operated by the City of Colton and SBMWD and is under the sole ownership of the City of San Bernardino. About 16,000 acre-feet a year of the treated effluent from this facility is used to maintain water flows in the Santa Ana River. The remainder has potential for reuse.

Sewer System

The nearest sewer line to the proposed project site is an eight-inch diameter sewer line at the intersection of Meyers Road and Little League Drive to the southeast of the site. From here, wastewater drains east on West

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Little League Drive to Kendall Drive, 40th Street, Mountain View Avenue, and then to Waterman Avenue before emptying into the WRP. The WRP is a secondary treatment facility serving a population of over 185,000, including the cities of San Bernardino and Loma Linda, the East Valley Water District customers (some of whom are within the City of San Bernardino), the San Bernardino International Airport, Patton State Hospital, and parts of unincorporated San Bernardino County.

Stormwater Drainage

The existing drainage on the proposed project's site follows generally natural patterns, with most stormwater drainage flowing into Cable Canyon and Meyers Canyon drainageways. In general, stormwater runoff flows from Cable Canyon to Cable Creek, and then into the Devil Creek Diversion Channel, where it is directed to Lytle Creek and eventually into the Santa Ana River. Onsite drainage flows into one of four drainage areas (drainage areas A, B, C, and D), which are described in more detail in Section 5.7, *Hydrology*. These natural drainage patterns would be preserved for the most part with the proposed development of the site.

Solid Waste

Solid waste service would be provided by the City of San Bernardino Refuse and Recycling Division. The Refuse and Recycling Division provides service to residential and commercial customers for solid waste, recyclables, and green waste pick-up. For 2007, the City of San Bernardino disposed of 227,594 tons of solid waste (CIWMB 2009). This amount reflects the total waste disposed after diversion. Mainly two landfills would be receiving solid waste from the proposed project: the Mid-Valley and San Timoteo sanitary landfills. The Mid-Valley landfill has a remaining capacity of 35,270,000 cubic yards, and the permitted maximum daily disposal rate is 7,500 tons. San Timoteo sanitary landfill has a remaining capacity of 9,491,163 cubic yards, and the maximum daily disposal rate is 1,000 tons.

Other Utilities

Electrical service would be supplied at the proposed project site by Southern California Edison. Although SCE has an easement on the site, with 115 kV utility lines traversing the site western portion of the site, there are no existing electrical utilities on the majority of the site. The existing residence onsite and the existing residences in the surrounding areas have electrical service.

The proposed project would be in the service area of the Southern California Gas Company. With the exception of the existing onsite residence and adjacent existing residences, there are no existing SCGC utilities onsite.

Charter Communications would provide cable television service to the proposed project site. With the exception of the services provided to the existing onsite residence and adjacent existing residences, there is no existing cable service on the proposed project site.

Telephone service would be provided by Verizon. With the exception of service to the existing onsite residence and adjacent existing residences, there is no existing telephone or telecommunication service on the proposed project site.

Please refer to Chapter 5.15, *Utilities and Service Systems*, for more information on the existing conditions for utilities and an analysis of the project's impacts on water supply, wastewater conveyance, solid waste generation, and other utility services.



4. Environmental Setting

4.3.12 General Plan and Zoning

County of San Bernardino

The project site is in the Verdemon community of unincorporated San Bernardino County and in the City of San Bernardino's SOI. The site is currently subject to the County of San Bernardino's General Plan and Zoning Code. As shown in Figure 4-6, *Existing Land Use Designations*, under the County's General Plan, the northern portion of the site—approximately 160 acres—is private unincorporated land, designated Resource Conservation (RC). The southern portion of the site, approximately 190.6 acres, is designated Rural Living (RL-5), which allows up to one dwelling unit per five acres. The adjacent 26.4-acre area that is part of the proposed annexation is designated by the County as Single-Family Residential (RS-1) on the upper portion and RL-5 on the lower portion. There are currently four homes existing in this area.

City of San Bernardino

As seen in Figure 4-6, the entire project site is currently rezoned in the General Plan by the City of San Bernardino and identified as Residential Estate (RE), allowing one dwelling unit per acre.

City Sphere of Influence

The Spring Trails site was placed in the City of San Bernardino's unincorporated SOI in September 1996, when the local agency formation commission (LAFCO) approved an SOI expansion for the City of San Bernardino. A sphere of influence, as defined by California Government Code, is a "plan for the probable physical boundaries and service area of a local agency as determined by the Commission." The SOI includes 6,829 acres, or 11 square miles, of unincorporated county territory. The County of San Bernardino has jurisdiction over these areas and the County's General Plan Land Use Plan provides land use designations for the SOI.

The proposal includes the annexation of the project site and of an adjacent 26.4-acre area consisting of six parcels owned by various property owners. The area is adjacent to the west of the project site along Meyers Road and currently has four occupied, multiple-acre lots. As shown in Figure 4-6, the parcels are currently designated RS-1 and RL-5 under the county. The 26.4-acre area adjacent to Spring Trails is being included in the annexation element of the proposed project to prevent the creation of a county island within the City of San Bernardino. The creation of an island is not allowed under regulations governing the LAFCO. A land use proposal has not been submitted for this 26.4-acre area, and it is not owned or otherwise under the control of the applicant.

The proposed project includes a request for annexation of the project site and adjoining parcels (a total of approximately 377 acres) into the City of San Bernardino. The annexation process would begin pending approval of the project application by the San Bernardino Mayor and Common Council.

4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as that necessary for the project alone. Section 15355 of the Guidelines defines cumulative impacts to be "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

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The CEQA Guidelines (Section 15130 [b][1]) state that the information utilized in an analysis of cumulative impacts should come from one of two sources, either:

- A. A list of past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or
- B. A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analyses contained in the various topical sections of Chapter 5, *Environmental Analysis*, use method B, which consists of the buildout projections in the City's General Plan (November 2005). The buildout potential for the City of San Bernardino, in accordance with the adopted General Plan, is shown on Table 4-1. As a result, this DEIR addresses the cumulative impacts of development within the City of San Bernardino and its SOI, which includes the project site.

Table 4-1
City of San Bernardino Buildout Projections

	City Area Projected Growth through Buildout	Sphere of Influence	Total
Dwelling Units	82,714	12,950	95,664
Population	276,264	42,976	319,241
Employment	338,712	16,918	355,629
Nonresidential sf.	189,934,304	13,670,628	203,604,932

Source: Table LU-3, City of San Bernardino General Plan, 2005.
sf = square feet



4. Environmental Setting

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