4.1 INTRODUCTION

The purpose of this section is to provide 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" pursuant to provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines. The environmental setting will provide a set of baseline physical conditions that will serve as a tool from which the lead agency will determine the significance of environmental impacts resulting from the proposed project. In addition, subsections of Chapter 5, *Environmental Analysis*, provide a more detailed description of the local environmental setting for specific topical areas.

4.2 REGIONAL ENVIRONMENTAL SETTING

4.2.1 Regional Location

The city of Sierra Madre (City) is in the foothills of the San Gabriel Valley below the southern edge of the Angeles National Forest, approximately 17 miles northeast of downtown Los Angeles at the base of the San Gabriel Mountains (see Figure 3-1, Regional Location). The city is in the central region of Los Angeles County and is bounded by the cities of Arcadia to the east and south and Pasadena to the west and the Angeles National Forest to the north (see Figure 3-1). The nearest major transportation corridor to the City is Interstate 210 (I-210), which runs in an east-west direction through the city of Arcadia approximately one-half mile south of the city limits and serves as the gateway connector to the regional freeway network for residents of Sierra Madre. Rosemead Boulevard, another regional roadway in the area, runs in a north-south direction less than one mile southwest of the city limits. No interstate or state route crosses the city's boundaries (see Figures 3-1 and 3-2, Citywide Aerial).

4.2.2 Regional Planning Considerations

Air Quality and Climate Change

The city is in the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (SCAQMD). The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants for which ambient air quality standards (AAQS) have been developed are known as criteria air pollutants and include ozone (O₃), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide, coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead. VOC and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants, such as O₃, through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants depending

on whether they meet the AAQS for that pollutant. The SoCAB is designated nonattainment for O₃ and PM_{2.5} under the California and National AAQS, nonattainment for lead (Los Angeles County only) under the National AAQS, and nonattainment for PM₁₀ and nitrogen dioxide (NO₂) under the California AAQS.^{1, 2}

Greenhouse Gas Emissions

Current State of California guidance and goals for reductions in greenhouse gas (GHG) emissions are generally embodied in Executive Order S-03-05; Assembly Bill 32 (AB 32), the Global Warming Solutions Act (2008); and Senate Bill 375 (SB 375), the Sustainable Communities and Climate Protection Act.

Executive Order S-3-05, signed June 1, 2005, set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

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. Based on the GHG emissions inventory conducted for its 2008 Scoping Plan, the California Air Resources Board (CARB) approved a 2020 emissions limit of 427 million metric tons of carbon dioxide-equivalent (MMTCO₂e) for the state (CARB 2008).

Since release of the 2008 Scoping Plan, CARB has updated the statewide GHG emissions inventory to reflect GHG emissions in light of the economic downturn and measures not previously considered in the 2008 Scoping Plan baseline inventory. The updated forecast predicts emissions to be 507 MMTCO₂e by 2020.³ The new inventory identifies that an estimated 80 MMTCO₂e of reductions are necessary to achieve the statewide emissions reduction of AB 32 by 2020 (CARB 2012).

In 2008, SB 375 was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO).

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CARB approved SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM₁₀ to attainment for PM₁₀ under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM₁₀ standards during the period from 2004 to 2007. In June 2013, the EPA approved the State of California's request to redesignate the South Coast PM₁₀ nonattainment area to attainment of the PM₁₀ National AAQS, effective on July 26, 2013.

² CARB has proposed to redesignate the SoCAB as attainment for lead and NO₂ under the California AAQS (CARB 2013).

³ The Statewide inventory in 2008 and the 2012 update is based on the global warming potentials (GWP) in Intergovernmental Panel on Climate Change's (IPCC) Second Assessment Report. CARB has updated the inventory as part of the 2014 Update to the Scoping Plan with GWPs in the Fourth Assessment Report. However, the inventory has not yet been updated with the GWPs in the Fifth Assessment Report.

As the southern California region's MPO, the Southern California Association of Governments' (SCAG) targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035 (CARB 2010). The proposed targets would result in 3 MMTCO₂e of reductions by 2020 and 15 MMTCO₂e of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's 2008 Scoping Plan (for AB 32) would be met (CARB 2010).

Southern California Association of Governments

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized 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. As the southern California region's MPO, SCAG cooperates with SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. The City of Sierra Madre is within the San Gabriel Valley Council of Governments (SGVCOG) subregion of SCAG, which has developed regional plans to achieve specific regional objectives, as discussed below.

Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2012, SCAG adopted the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (2012-2035 RTP/SCS), "Towards a Sustainable Future". SCAG has placed a greater emphasis than ever on sustainability and integrated planning in the 2012–2035 RTP/SCS, and its RTP/SCS vision encompasses three principles that collectively work as the key to the region's future: mobility, economy, and sustainability. The 2012–2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the National AAQS as set by the federal Clean Air Act. The 2012–2035 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). The General Plan Update's consistency with the applicable 2012 RTP/SCS policies is analyzed in detail in Section 5.7, *Land Use and Planning*.

High Quality Transit Areas

With the adoption of the 2012 RTP/SCS, the areas previously known as 2% Strategy Opportunity Areas were updated by SCAG and replaced with what are now called high quality transit areas (HQTA), which are a part of and integrated into the SCS portion (Chapter 4 [Sustainable Communities Strategy]) of the 2012 RTP/SCS. An HQTA is generally a walkable transit village or corridor that is within a half mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. The overall land use pattern of the 2012 RTP/SCS focuses jobs and housing in the region's designated HQTAs (SCAG 2012). No areas of the City are identified as HQTAs in the 2012 RTP/SCS (SCAG 2014).

Los Angeles Metropolitan Transit Authority

The Los Angeles Metropolitan Transit Authority (Metro) is Los Angeles County's designated congestion management agency. Metro is responsible for the conformance monitoring and updating of Los Angeles County's Congestion Management Program (CMP), a multimodal program. The General Plan Update's consistency with the CMP is provided in Section 5.12, *Transportation and Traffic*.

Congestion Management Program

The most recent CMP was issued by Metro in 2010. The goals of the CMP are to link local land use decisions with their impacts on regional transportation, and air quality; and to develop a partnership among transportation decision makers on devising appropriate transportation solutions that include all modes of travel. To meet these goals, the CMP provides:

- Tracking and analysis to determine how the regional highway and transit systems are performing.
- Local analysis of the impacts of local land use decisions on regional transportation.
- Local implementation of Transportation Demand Management (TDM) design guidelines that ensure new development includes improvements supportive of transit and TDM.
- Tracking new building activity throughout Los Angeles County (Metro 2010).

4.3 LOCAL ENVIRONMENTAL SETTING

4.3.1 Location and Land Use

The city comprises 1,882 acres (2.94 square miles). As shown in Figure 3-2, *Citywide Aerial*, the city is generally bounded by Orange Grove Avenue on the south, Michillinda Avenue on the west, Santa Anita Avenue on the east, and the San Gabriel Mountains to the north. There are three distinct geographic patterns/areas in the city—the foothill slope, canyon (known as the Sierra Madre Canyon or The Canyon), and hillside. Two-thirds of the city is within the foothill slope area, which is the "developable" area of the City and is largely developed.

Sierra Madre is an established, built-out community with just a handful of vacant parcels remaining and a population of approximately 11,030 people. Because the nearest major transportation corridor (I-210) to the city is approximately one mile south of the city limits, Sierra Madre has maintained its small-town village qualities and has been protected from pressures of growth, modernization, and diversification compared to its surrounding cities.

The city's land use pattern is well established and not likely to change over time. As shown in Figure 3-3, Existing Land Uses, the predominant land use in the city is residential, consisting of low, medium, and medium-high density residential. The majority of low- and medium-density residential occurs in the foothill slope area; however, there is some low- and medium-density residential within the canyon and along the

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hillside areas. The majority of the medium-high density residential is located around the downtown area near Baldwin Avenue, Sierra Madre Boulevard and adjacent streets; however, there is some medium-high density residential along the foothill slope, along Sierra Madre Boulevard.

Other land uses in the city include commercial, light industrial, mixed use, institutional, civic uses, public schools, and open space and parks. As shown in Figure 3-3, the majority of the institutional/civic/park uses, as well as the city's open space areas, occur north of Sierra Madre Boulevard. Open space is the most prominent nonresidential land use, with institutional uses making up the third largest area of land (see Figure 3-3). Institutional uses are generally mixed within the residential and commercial areas. Most institutional uses are old and well established in the city. All of the city's commercial uses (e.g., retail, professional office, and neighborhood services) are in the downtown area of the city, concentrated along Sierra Madre Boulevard, Baldwin Avenue, and adjacent smaller streets (see Figure 3-3). There are a few mixed-use parcels consisting of both residential and commercial uses in and around the city's downtown area, mostly on Sierra Madre Boulevard and Baldwin Avenue. Mixed-use buildings include the Renaissance Plaza and the former Hotel Shirley, both of which contain a mix of office, retail and residential uses, and a live/work building on East Montecito Avenue. These is also an older well-established light manufacturing area in the city along East Montecito Avenue, which includes a mix of single-family residences, warehouses, office spaces, artist studios, and one complex of live-work condominiums.

4.3.2 General Plan and Zoning

Current General Plan and Land Use Designations

The current Sierra Madre General Plan was adopted on June 11, 1996, and has four elements, each with a series of sections or topics related to the element (see Table 3-1, *Current General Plan Elements*). Table 3-2, *Current General Plan Land Use Designations*, presents a breakdown of current General Plan land use designations in Sierra Madre, while Figure 3-4, *Current Land Use Map*, shows the location and distribution of current land use designations. As shown in Table 3-2 and Figure 3-3, 11 land use designations plus the Measure V⁴ Area boundary currently regulate development in the city. The predominant land use designation in Sierra Madre is residential, comprising 88 percent of the land in the city, with commercial, civic, institutional, light manufacturing, and open space making up the remainder of the land use designations.

Existing Zoning

Title 17 (Zoning) of the City of Sierra Madre Municipal Code provides the basis for current zoning in the city. The City's official zoning map has 13 zoning designations and the Measure V Area boundary. Specifically, the zoning map contains eight residential zoning designations, as well as a zoning designation for each of the following uses: commercial, light manufacturing, institutional, civic/city park, hillside, and open space.

⁴ Sierra Madre voters adopted Measure V in 2007 to preserve the City's small-town downtown character. This measure limits building heights to 30 feet and two stories and the density to 13 dwellings units per acre in the City's central core area, including East Montecito Avenue.

The city also has three overlay zones in the form of specific plans; the specific plans function as the regulating zoning document for the properties associated with the specific plans. The first is the Senior Housing Specific Plan, adopted by the City Council in July 2002, for the 46-unit Sierra Vista Senior Housing development at 70 Esperanza Avenue. The second specific plan is The Kensington (Assisted Living Facility) Specific Plan, which was adopted by the City Council in July 2012 for the development of an assisted living facility at the property on the northwest corner of the Sierra Madre Boulevard/Hermosa Avenue intersection. The third specific plan is The British Home (Assisted Living Facility) Specific Plan, which was adopted by the City Council in February 2013 for the expansion of an assisted living facility on a property situated midblock between Ramona Avenue and Manzanita Avenue, east of Michillinda Avenue and west of Sunnyside Avenue.

4.3.3 Air Quality and Greenhouse Gas Emissions

As noted above, Sierra Madre is in the SoCAB, which is managed by SCAQMD. The SoCAB is designated as nonattainment for ozone (O₃), fine inhalable particulate matter (PM_{2.5}), and lead (Los Angeles County only) under the California and National AAQS and nonattainment for coarse inhalable particulate matter (PM₁₀) and nitrogen dioxide (NO₂) under the California AAQS. Additional information regarding air quality and climate change regulation affecting Sierra Madre is provided in Section 4.2.2, Regional Planning Considerations, above. Existing climate and air quality conditions in the city are also provided in Sections 5.2, Air Quality, and 5.6, Greenhouse Gas Emissions.

4.3.4 Biological Resources

The city has approximately 610 acres, approximately 37 percent of the city's land area, zoned as hillside management (also referred to as the Hillside Management Zone, or HMZ), which is mostly open space. Vegetation types in this area of the city include grassland, coastal sage scrub, chaparral, southern oak woodland, and riparian forest/woodland. There are three sensitive plant communities documented in Sierra Madre on the California Natural Diversity Database (CNDDB): Southern Coast Live Oak Riparian Forest, Riversidian Alluvial Fan Sage Scrub, and Coastal Sage Scrub. Additionally, two sensitive plant communities, Southern Sycamore Alder Riparian Woodland and Open Engelmann Oak Woodland are documented as occurring near the city's boundaries on the CNDDB and may have some possibility of occurring in the city limits. A number of special status wildlife species are also documented as occurring in the city.

The city is located at the foothills of the San Gabriel Mountains and is a prime location for wildlife movement. Species such as mule deer, bobcats, bears, and coyotes would generally move along ridgelines, drainage bottoms, and unpaved roads in these areas of the city. However, most of the wildlife species that occur in the hillsides are now increasingly rare due to the highly urbanized interface between the city and the San Gabriel Mountains.

Additional information regarding biological resources in Sierra Madre and areas surrounding the city, including the Angeles National Forest and the San Gabriel Mountains, is provided in Section 5.3, *Biological Resources*.

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4.3.5 Geology and Landform

The city is within the bounds of two geomorphic provinces; the southern urbanized area is within the Peninsular Ranges Geomorphic Province and the northern foothill area is within the Transverse Ranges Geomorphic Province. More specifically, Sierra Madre is found on the alluvial plain in the northwestern portion of the San Gabriel Valley. An alluvial plain is a mass deposit of sediment that is gathered over time as it is deposited by a river or stream. The city's alluvial plain consists mainly of younger alluvial fan deposits derived from the San Gabriel Mountains during the Pleistocene era in the southern developed areas while the northern foothills of the city consist of older alluvium, granitic rock, and metamorphic rocks from the Mesozoic era.

No areas of the city are within an Alquist-Priolo Earthquake Fault Zone; however, there are many active and potentially active faults within or in the vicinity of the city. Such faults include the Sierra Madre Fault, Clamshell-Sawpit Fault, and the Raymond Fault. Aside from local faults, regional faults in the region could also cause considerable damage and include those such as the San Andreas, Newport-Inglewood, Palos Verdes, Whittier, and Malibu Coast Faults, which are all considered to be active.

The city's topography is characterized by broad, gentle foothill slopes within the southern portions and steep hillsides and ridge-line canyon terrain in the northern portions adjacent to the Angeles National Forest and the San Gabriel Mountains. Elevations in the city range from a high of 1,500 feet to a low of 600 feet; the terrain is characterized by a gentle slope with a consistent downgrade slope of 7.5 percent.

Refer to Section 5.5, *Geology and Soils*, for additional information concerning geological and soil conditions and an analysis of project impacts on geology and soils.

4.3.6 **Noise**

The primary sources of noise in the city are from vehicular traffic, primarily traffic from adjacent roadways, background noise from I-210, and sporadic miscellaneous events such as landscaping, street sweeping, and helicopter flights. Refer to Section 5.8, *Noise*, for additional information concerning the noise environment and an analysis of project-related noise impacts.

4.3.7 Public Services and Utilities

Public services and utilities are provided in the city by providers listed in Table 4-1. Additional information describing the provision of public services and utilities in the City, and an analysis of project impacts on public services and utilities are found in Sections 5.10, *Public Services*, and 5.13, *Utilities and Service Systems*.

Table 4-1 Public Service and Utility Providers

| Public Services | |
|--|---|
| Police | Sierra Madre Police Department |
| Fire Protection and Emergency Medical Services | Sierra Madre Fire Department |
| Public Schools | Pasadena Unified School District |
| Library | Sierra Madre Public Library |
| Parks | City of Sierra Madre |
| Utilities | |
| Water | City of Sierra Madre Water Division |
| Wastewater Treatment | Sierra Madre Public Works Department – Sewer Division |
| Regional Flood Control | Los Angeles Country Flood Control District |
| Solid Waste Collection | Athens Services |
| Solid Waste Disposal (Landfills) | Sanitation Districts of Los Angeles County |
| Electricity | Southern California Edison |
| Natural Gas | Southern California Gas Company |
| Cable Television and Telephone | Time Warner Cable and Verizon |

4.3.8 Scenic Features and Resources

Given the city's location in the foothills of the San Gabriel Mountains, its residents have a scenic backdrop of the southern ranges with elevations ranging from approximately 1,000 to 5,400 feet above mean sea level. The foothills are the city's major scenic features complemented by the natural vegetation and topography, such as swales, knolls, and rock outcroppings along the foothills. Views of these features are afforded throughout the city and outside of the city's boundaries. Refer to Section 5.1, *Aesthetics*, for additional information concerning scenic features and an analysis of project impacts on scenic features.

4.3.9 Transportation

The nearest major transportation corridor to the City is I-210, which runs in an east-west direction through the city of Arcadia approximately one-half mile south of the city limits, and serves as the gateway connector to the regional freeway network for residents of Sierra Madre. I-210 provides access primarily via interchanges at Santa Anita Avenue, Baldwin Avenue, and Michillinda Avenue, all of which enter the city at some point in their alignment. Another regional roadway in the area, Rosemead Boulevard, runs in a north-south direction less than one mile southwest of the city limits (see Figure 3-1, Regional Location). The circulation network serving the city is essentially a grid system of roadways generally oriented in a north-south and east-west direction. The primary roadways forming the transportation network in Sierra Madre include Michillinda Avenue, Sierra Madre Boulevard, Baldwin Avenue, Santa Anita Avenue, Grand View Avenue, Orange Grove Avenue, Lima Street, and Mountain Trail Avenue. The roads in Sierra Madre share certain general characteristics: they are all two-lane streets with no medians (except for Santa Anita Avenue), shading from large trees is typical, and the roadways are generally wide as compared to other small cities.

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Metro operates the Gold Line light rail train connecting the northwestern San Gabriel Valley to Downtown Los Angeles. In the vicinity of Sierra Madre, the Gold Line track runs along the median of I-210. The eastern terminus of the Gold Line in the San Gabriel Valley is in the city of Pasadena, near the Madre Street interchange with I-210. The station is approximately two miles southwest from central Sierra Madre (see Figure 3-2, *Citywide Aerial*), making it accessible by bicycle, transit, or personal vehicle. The Gold Line segment from Pasadena to Azusa broke ground on June 26, 2010, and is slated for completion in September 2015. This segment will continue the Gold Line east from its current terminus in Pasadena to the city of Azusa, with the ultimate goal of extending the line to the eastern edge of the San Gabriel Valley. The subsequent segment (Azusa to Claremont) for the Gold Line recently cleared environmental review (certified by the Construction Authority Board of Directors in March 2013) and construction will commence sometime after the Pasadena to Azusa segment is completed (Metro 2014).

Within the city, there are two entities operating transit routes: Metro and the City of Sierra Madre. Metro operates two lines within the city, Lines 268 and 487. Line 268 provides service within the city along Michillinda Avenue, Sierra Madre Boulevard, and Baldwin Avenue, while Line 487 provides service along Sierra Madre Boulevard. The city operates a fixed-route shuttle bus known as the Gateway Coach to serve residents during the week. The Gateway Coach line only operates on 50-minute headways during the morning, mid-day and evening peak periods, but does not currently provide access to the Metro Gold Line station; it does, however, provide access to downtown Sierra Madre, and the shopping center located in Hastings Ranch in Pasadena at the intersection of Michillinda Avenue and Sierra Madre Boulevard.

A detailed discussion of the existing traffic conditions and the project's impacts on the transportation and circulation system is provided in Section 5.12, *Transportation and Traffic*.

4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

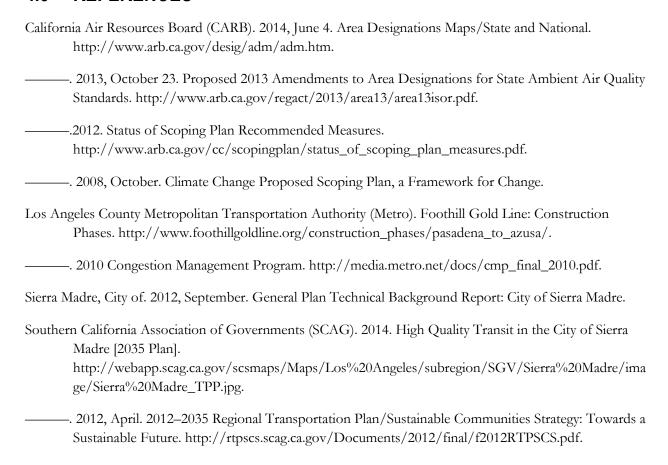
Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed when a project's incremental effect is cumulatively considerable. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great detail as that necessary for the proposed project alone. Section 15355 of the CEQA 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 the proposed project when added to effects of past projects, other current projects, and probable future projects in the vicinity.

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

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

The cumulative impacts analyses in Chapter 5, Environmental Analysis, of this DEIR uses method No. 2. The proposed project consists of the Sierra Madre General Plan Update. Consistent with Section 15130(b)(1)(B) of the CEQA Guidelines, this DEIR analyzes the environmental impacts of developments in accordance with buildout of the General Plan Update. As a result, this DEIR addresses the cumulative impacts of development within the city of Sierra Madre and the larger region surrounding it, as appropriate. In most cases, the potential for cumulative impacts is contiguous with the city boundary, since the City is the service provider for various city services and public utilities. Potential cumulative impacts related to traffic, air quality, and noise, which have the potential for impacts beyond the city boundary, have been addressed through use of a traffic model. The city uses SCAG's Regional Travel Demand Model to forecast cumulative growth in the city and regionally. Regional growth outside of the city has accounted for traffic, air quality, and noise impacts through use of this model, which is a socioeconomic traffic model that uses regional growth projections to calculate future traffic volumes. The growth projections adopted by the city and surrounding area are used for the cumulative impact analyses of this DEIR. Please refer to individual topical sections of Chapter 5 for a discussion of the cumulative impacts associated with development and growth in the city and region.

4.5 REFERENCES



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