

## 4. Environmental Setting

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## 4.1 INTRODUCTION

This section provides 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” (Guidelines § 15125[a]), pursuant to provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The environmental setting provides the baseline physical conditions from which the lead agency will determine the significance of environmental impacts resulting from the proposed project.

## 4.2 REGIONAL ENVIRONMENTAL SETTING

### 4.2.1 Regional Location

The City of Brea is in the northeast portion of Orange County and is bordered by the cities of La Habra to the northwest; Fullerton to the southwest and south; Placentia to the south; Yorba Linda to the southeast and east; unincorporated Orange County to the east, northeast, and north; Chino Hills in San Bernardino County to the northeast; and unincorporated Los Angeles County to the northwest (see Figure 3-1, *Regional Location*, in Chapter 3, *Project Description*).

The project site is north of State Route 90 (SR-90) and east of State Route 57 (SR-57). It covers 262.1 acres in the City of Brea and City’s sphere of influence (SOI)—43 acres are in incorporated Brea, and 219.1 acres are in the SOI.

### 4.2.2 Regional Planning Considerations

#### **SCAG Regional Transportation Plan/Sustainable Communities Strategy**

The Southern California Association of Governments (SCAG) is a council of governments representing six counties—Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties—191 cities, and more than 19 million residents. SCAG is the nation’s largest metropolitan planning organization, with jurisdiction 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.

The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), “Connect SoCal,” was adopted in September 2020. Connect SoCal embodies a collective vision for the region’s future and is developed with input from local governments, county transportation commissions, tribal governments,

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nonprofit organizations, businesses, and local stakeholders in the member counties. Connect SoCal is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals. It builds upon and expands land use and transportation strategies established over several planning cycles to increase mobility options and achieve a more sustainable growth pattern. It charts a path toward a more mobile, sustainable, and prosperous region by making connections between transportation networks, between planning strategies, and between the people whose collaboration can improve the quality of life for residents of southern Californians. Connect SoCal outlines over 4,000 transportation projects through 2045, such as highway improvements, railroad grade separations, bicycle lanes, new transit hubs, and replacement bridges. In addition, Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and federal Clean Air Act requirements. The plan also strives to achieve broader regional objectives, such as the preservation of natural lands, improvement of public health, increased roadway safety, support for the region's vital goods movement industries, and more efficient use of resources.

The SCS outlines a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies that will achieve the regional greenhouse gas emissions reduction targets identified by the California Air Resources Board. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to governments and developers for consistency. The proposed project's consistency with the applicable 2020-2045 RTP/SCS policies is analyzed in detail in Section 5.11, *Land Use and Planning*.

### **South Coast Air Basin Air Quality Management Plan**

The project site is in the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (AQMD). Pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law and standards are detailed in the SoCAB Air Quality Management Plan (AQMP). Air pollutants for which ambient air quality standards (AAQS) have been developed are known as criteria air pollutants—ozone (O<sub>3</sub>), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide, coarse inhalable particulate matter (PM<sub>10</sub>), fine inhalable particulate matter (PM<sub>2.5</sub>), and lead. VOC and NO<sub>x</sub> are criteria pollutant precursors and go on to form secondary criteria pollutants, such as O<sub>3</sub>, through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants depending on whether they meet AAQS for that pollutant. The SoCAB is designated nonattainment for O<sub>3</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO<sub>2</sub> under the California AAQS (CARB 2017a). The proposed project's consistency with the applicable AAQS is discussed in Section 5.3, *Air Quality*.

### **Greenhouse Gas Emissions Reduction Legislation**

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); Executive Order B-15-30 and Senate Bill 32 (SB 32); SB 375; and Executive Order B-5518 and SB 100.

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Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction goals for the State of California:

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

AB 32 was passed by the state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 established a legislative target for the year 2020 goal outlined in Executive Order S-03-05. CARB prepared its first Scoping Plan in 2008 outlining the State's plan for achieving the 2020 targets of AB 32 (CARB 2008).

In 2008, SB 375 was adopted to connect passenger vehicle GHG emissions reductions targets 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 by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT) and vehicle trips.

In September 2016, Governor Brown signed SB 32, making the Executive Order B-15-30 goal of a 40 percent reduction below 1990 levels by 2030 into a statewide mandated target. CARB issued an update to its Scoping Plan in 2017 for meeting the SB 32 reduction target (CARB 2017b).

Executive Order B-55-18 sets a goal for the state to achieve carbon neutrality no later than 2045 and to achieve and maintain net negative emissions thereafter. SB 100 would help the state reach the goal set by Executive Order B-55-18 by requiring that the state's electricity suppliers have a source mix that consists of at least 60 percent renewable/zero carbon sources in 2030 and 100 percent renewable/zero carbon sources in 2045.

The project's ability to meet these regional GHG emissions reduction target goals is analyzed in Section 5.8, *Greenhouse Gas Emissions*.

### **Senate Bill 743**

On September 27, 2013, SB 743 was signed into law, starting a process that fundamentally changed transportation impact analysis as part of CEQA compliance. With the adoption of the SB 375, the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce VMT and contribute to the reduction of GHG emissions, as required by the California Global Warming Solutions Act of 2006 (AB 32).

SB 743 eliminates auto delay, level of service (LOS), and similar measures of vehicular capacity or traffic congestion as the sole basis for determining significant impacts under CEQA. As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099(b)(1)). The Natural Resources Agency adopted revisions to the CEQA Guidelines to implement SB 743 on December 28, 2018, and established new criteria for determining the significance of transportation impacts. Under the

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revised Guidelines, effective July 1, 2020, VMT-related metric(s) that evaluate the significance of transportation-related impacts must be used under CEQA for development projects, land use plans, and transportation infrastructure projects.

### 4.3 LOCAL ENVIRONMENTAL SETTING

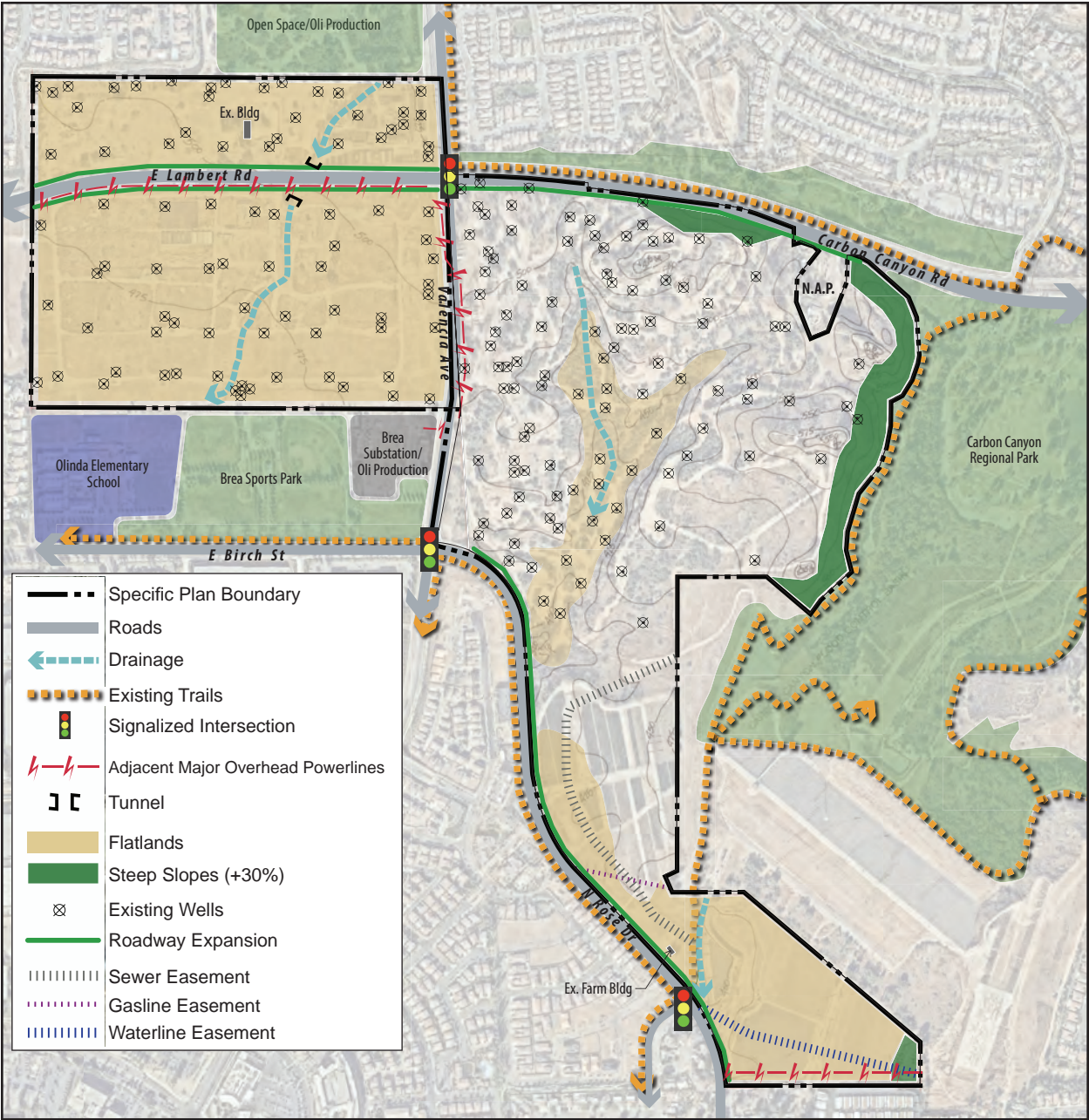
#### 4.3.1 Location and Land Use

The project site is south of Lambert Road/Carbon Canyon Road, north of Rose Drive, east of Valencia Avenue and west of Carbon Canyon Regional Park, as shown on Figure 3-3, *Aerial Photograph*. The Specific Plan area is bisected by Valencia Avenue, which runs north-south, and by Lambert Road, which runs east-west. The 262.1-acre project site is an active oil operations site owned by Aera Energy, with the exception of the southern agricultural area. There is no public access. Existing trail systems are provided on surrounding streets outside of the project site and within Carbon Canyon Regional Park. Figure 4-1, *Project Site Existing Conditions*, shows conditions on the project site.

The project site has been used for oil production continuously since the early 1900s. Of the approximately 190 wells drilled on the site, 68 remain in operation and produce approximately 400 barrels per day. Oil operations will continue as outlined in the Development Agreement. After project entitlements are complete and before phased development, Aera Energy will discontinue all on-site oil operations and abandon and remediate the oil wells and production facilities in accordance with federal, state, and local regulations in advance of implementing a given project phase.

The 167.6 acres east of Valencia Avenue slope down from northeast to southwest, with more than 150 feet of elevation change. The remaining 94.5 acres west of Valencia Avenue slope from north to south, with an average slope of approximately 3 percent. As shown in Figure 4-2, *Existing Slope Analysis*, most of the Specific Plan area is considered flat because it falls into the 0 to 10 percent slope range, with elevations gradually increasing in the northeastern part of the site. Drainage naturally flows from the north to the south on the project site. A hilltop in the northeast of the project site provides views of surrounding terrain.

Figure 4-1 - Project Site Existing Conditions  
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Scale (Feet)

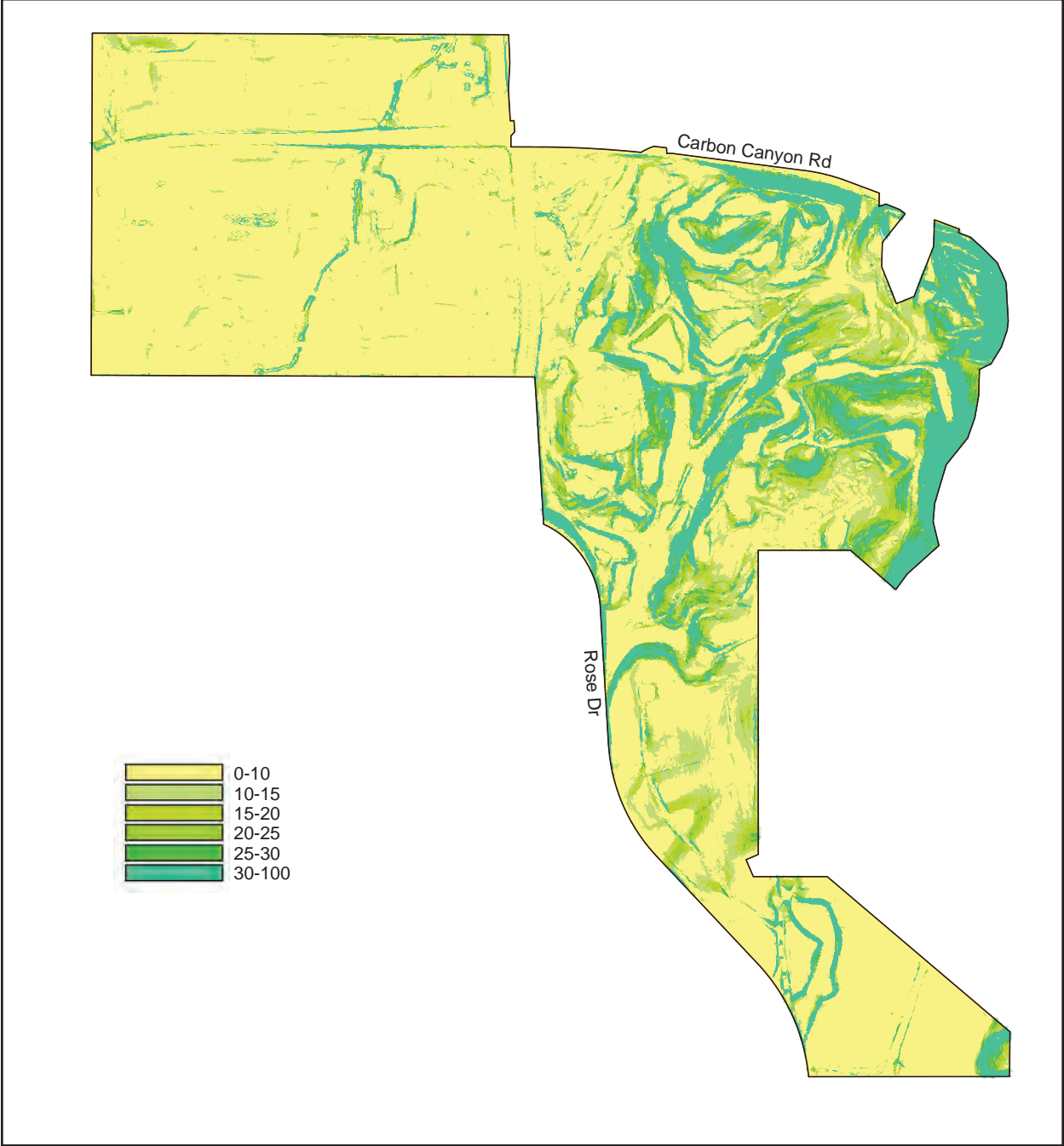


Source: KTG Group, 2021

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Figure 4-2 - Existing Slope Analysis  
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Source: KTG Group, 2019

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### 4.3.2 Surrounding Land Uses

The project site is generally bordered by residential uses to the west and north. A small area devoted to oil operations and open space is also to the north. The Olinda Elementary School, the Brea Sports Park, and the mixed-use community of La Floresta are adjacent to the site's southern border. A future city park site abuts the project site's northern boundary west of Valencia Avenue. Carbon Canyon Regional Park and the Carbon Canyon Dam are adjacent to the site's eastern border. Current access to Carbon Canyon Regional Park is formally from Carbon Canyon Road and informally through the Carbon Canyon Dam property at Rose Drive. Light industrial development is to the southwest of the Valencia Avenue/Birch Street intersection. Figure 4-3, *Surrounding Land Uses and Densities*, illustrates major land uses in the surrounding area. Other uses in the area include an employment center approximately one-quarter mile south of the project site, and Downtown Brea, Brea Mall, and City Hall are approximately three miles to the west of the project site. The Tracks at Brea Trail provides future trail connectivity to Downtown Brea, Brea Mall, and City Hall, as shown in Figure 4-4, *The Tracks at Brea Trail*.

### 4.3.3 Public Services and Utilities

Existing sewer, natural gas line, and water line easements are in the southeastern part of the project site. Major overhead power lines are on Lambert Road and Valencia Avenue. The following service providers provide utilities services to the project site.

- Water: City of Brea
- Wastewater: City of Brea and Orange County Sanitation District
- Stormwater: City of Brea Public Works Department and Orange County Flood Control District
- Solid Waste: Republic Services
- Electricity: Southern California Edison
- Natural Gas: Southern California Gas Company
- School: Brea-Olinda Unified School District
- Police: Brea Police Department
- Fire: Brea Fire Department

### 4.3.4 General Plan and Zoning

Approximately 43 acres of the project site are in Brea's corporate boundaries and designated "Hillside Residential" on the Brea General Plan Land Use Policy Map. The remaining 219.1 acres of the project are in unincorporated Orange County and in the southern part of Brea's SOI. The General Plan Land Use Policy

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Map designates 124.6 acres of this “Hillside Residential” and 94.5 acres “Low Density Residential.” Figure 3-7, *Existing and Proposed General Plan Land Use Designations*, shows these designations.

The 43 acres of the Specific Plan area in the city are zoned “HR Hillside Residential.” The 124.6 acres in Brea’s SOI east of Valencia Avenue are designated “HR Hillside Residential,” and the other 94.5 acres in Brea’s SOI west of Valencia Avenue are designated “R-1 Single-Family Residential.” Figure 3-8, *Existing and Proposed Zoning Designations*, shows these designations.

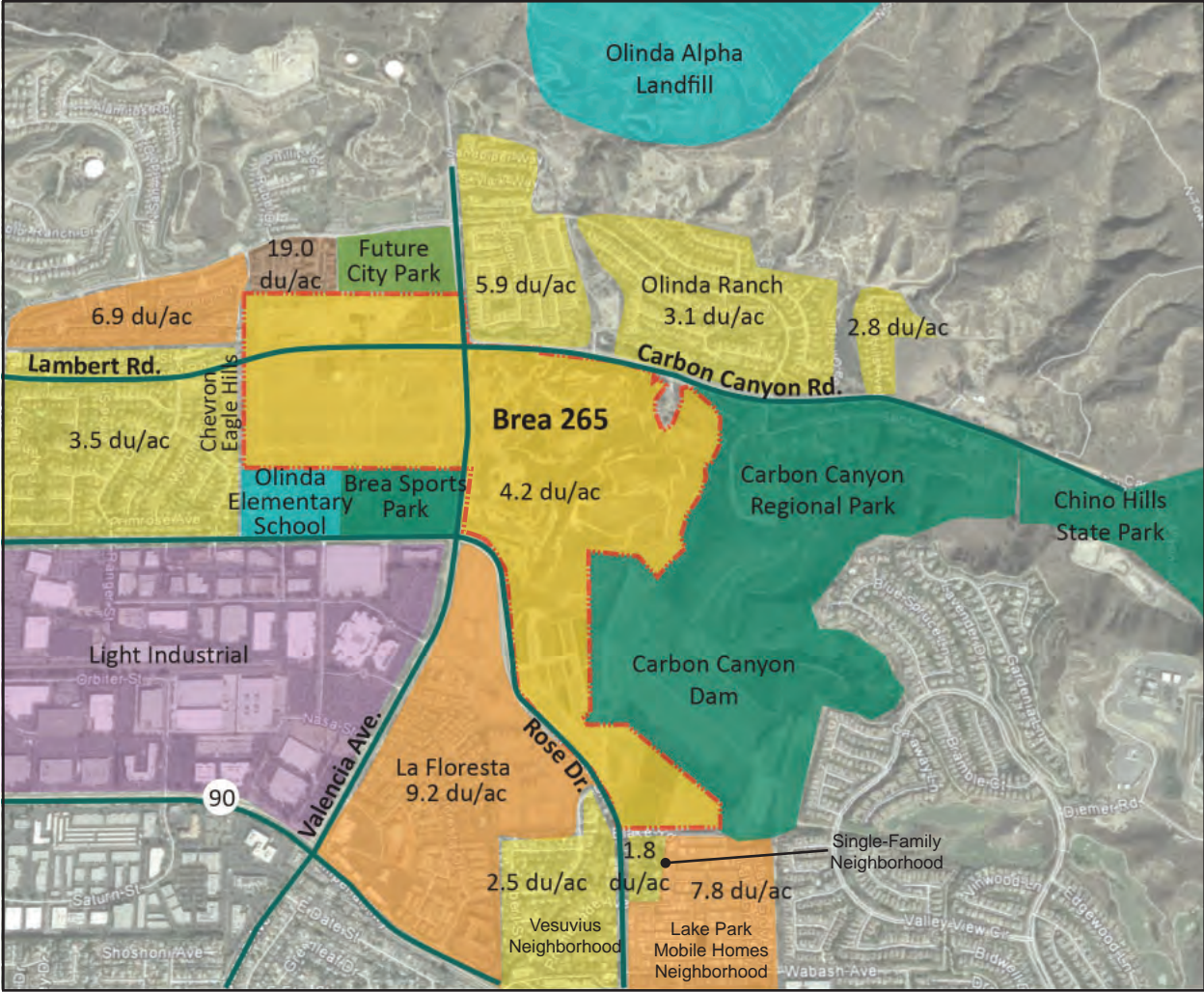
### 4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

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.

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:

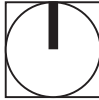
- A. A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency; or
- B. A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or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

Figure 4-3 - Surrounding Land Uses and Densities  
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--- Specific Plan Boundary

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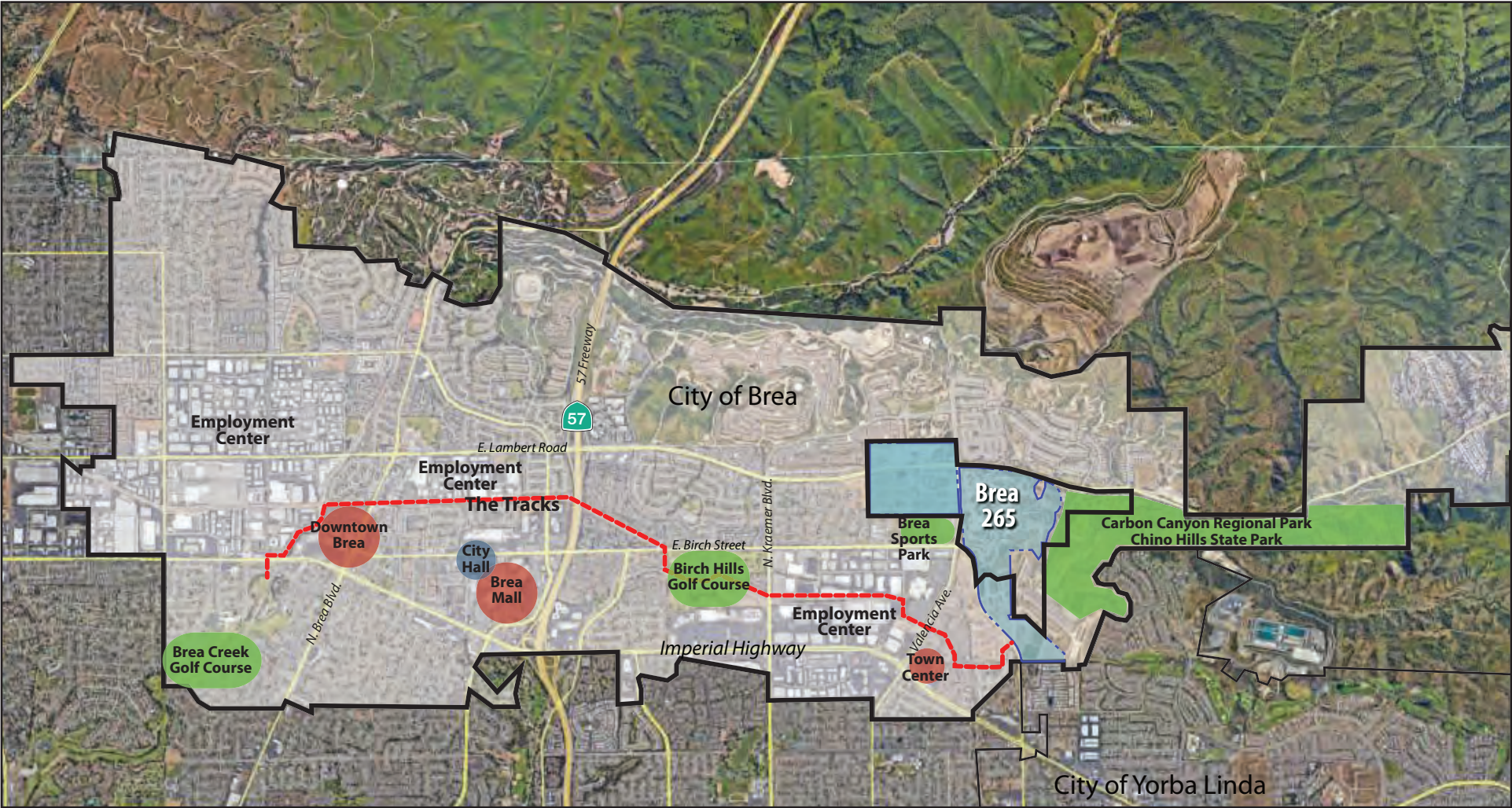


Source: KTG Group, 2019

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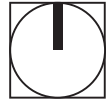
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Figure 4-4 - The Tracks at Brea Trail  
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— City Boundary  
- - - The Tracks at Brea Trail

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Source: KTG Group, 2021

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The cumulative impact analyses in this EIR uses a combination of method A and B. Generally, the growth projections that are identified in the Brea General Plan and related planning documents are used to evaluate regional or area-wide conditions. Table 4-1, *Related Cumulative Projects*, provides a list of cumulative projects used in this EIR.

**Table 4-1 Related Cumulative Projects**

Description	Location/Address	Size
<b>City of Brea</b>		
1. CVS	390 N. Brea Boulevard	13,000 SF Pharmacy with Drive-Through, 1,700 SF Coffee Shop with Drive-through
2. Brea Place	State College Boulevard at Birch Street	653 DU Apartments, 5,000 SF Office, 150 Room Hotel <sup>9</sup>
3. Downtown Hotel	220 S. Brea Boulevard	116 Room Hotel, 4,000 SF High Turnover Sit Down Restaurant
4. Mercury Apartments	Southeast corner of Berry Street at Mercury Lane	120 DU Apartments
5. Brea Mall Mixed-Use Project	1065 Brea Mall	Demolish existing 161,990 SF Sears department store and develop 183,615 SF retail space inclusive of a 50,019 SF sporting goods store and a 128,000 SF health club, and a 312 DU apartment building
6. Brea Plaza	409-477 S. Associated Road and 1555, 1609, 1623, 1643 E. Imperial Highway	Demolition of an existing 18,450 SF movie theater and the construction of a mixed-use development with 21,355 SF of office space and 229 apartment units
7. Central Park Village	340-420 W. Central Avenue	62 DU townhomes and 20 DU apartments
8. New Industrial Building	201 N. Berry Street	109,125 SF warehouse
9. Alvero Assisted Living	251 S. Randolph Avenue	80 rooms with 82 beds residential care facility
10. Extra Space Self Storage	2700 E. Imperial Highway	126,546 self-storage facility
11. Brea Imperial Center	391 S. State College Boulevard	5,000 SF restaurant, 2,300 SF bagel/coffee shop, 1,600 SF café, 3,867 SF In-N-Out, 28,145 SF retail, and 4,400 SF bank to replace existing land uses which include 4,050 SF food uses, 24,481 SF retail, 4,400 SF bank, 2,325 SF medical office, 10,074 SF health studio spa.
12. Transwestern	285 S. Berry Street and 711 W. Imperial Highway	126,797 SF warehouse
13. The Phoenix Club	375 W. Central Avenue	8,350 SF restaurant with banquet hall
14. Aldi Grocery Store	2395 E. Imperial Highway	21,106 SF grocery store
15. Starbucks with Drive-Thru	2 Pointe Drive	2,400 SF coffee shop with drive-thru
16. Lambert Road Condos	700-800 W. Lambert Road	24 DU condominiums
17. Brea Metro Office Condos	330 E. Lambert Road	33 DU condominiums
18. Father's House	245 W. Birch Street	299 seat religious assembly

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**Table 4-1 Related Cumulative Projects**

Description	Location/Address	Size
19. Cha Cha's Expansion	110 W. Birch Street	Existing restaurant expansion of 2,710 SF
20. Western Realco	2929 E. Imperial Highway	131,500 SF industrial building
21. CAMP Transformation	910 E. Birch Street, Suite 250	4,100 SF Fitness Center
22. Brea Express Wash	300 S. Brea Boulevard	4,254 SF express car wash
23. Raising Cane's	255 E. Imperial Highway	Demolish existing 9,588 SF office building and construction of a 4,047 SF fast food restaurant with drive-through
<b>City of Fullerton</b>		
24. 3105 Yorba Linda Boulevard	3105 Yorba Linda Boulevard	4,840 SF drive-through car wash
25. Beckman Business Center	4300 North Harbor Boulevard	522,250 SF Warehousing, 166,185 SF General Light Industrial, 105,880 SF Manufacturing, 42,000 SF Office, and 142,350 SF fulfillment center
<b>City of Chino Hills</b>		
26. Woodbridge Pacific Group (Canyon Hills/Hillcrest)	Northwest of Carbon Canyon Road and west of Canyon Hills Road	38 DU single family detached
27. Stonefield Development	Northwest of Carbon Canyon Road and east of Fairway Drive	28 DU single-family
28. Morningfield Estates and Loving Savior of the Hills Lutheran Church and School Master Plan Addendum	South of Morningfield Drive, west of Peyton Drive, north of Chino Hills Parkway, adjacent to San Bernardino County Flood Channel	7-Lot Subdivision with semi-custom single-family homes, plus 3 classrooms/71 student addition to the Lutheran school
29. Coptic Orthodox Church	East side of Peyton Drive, north of the Chino Creek Drainage Channel and south of the Chino Valley Community Church property	14,695 SF multipurpose room, 8,645 SF Sanctuary and 555 SF Bookstore
30. Buddhist Temple of Chino Hills	Northeast of Chino Hills Parkway and Rustic Drive	23,400 SF Buddhist temple expansion
31. Hidden Oaks	East of Carbon Canyon Road at Canyon Hills Road	53 DU Single Family
32. Greening Los Serranos Golf Course Project	15656 Yorba Avenue	124 DU single family, 532 DU multifamily
33. Paradise Ranch	East of Canyon Hills Road and south of Esquilime Drive	51 DU single-family

Source: LLG 2021.  
DU = dwelling unit  
SF = square feet

Depending on the environmental category, the cumulative impact analysis may use either source A or B. Some impacts are site specific, such as cultural resources, and others may have impacts outside the city boundaries, such as regional air quality. Please refer to Chapter 5, *Environmental Analysis*, of this DEIR for a discussion of the cumulative impacts associated with development and growth in the city and region for each environmental resource area.

Cumulative impact analyses are based on the most appropriate geographic boundaries. Several potential cumulative impacts that encompass regional boundaries (e.g., air quality and traffic) have been addressed in the



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context of regional plans and defined significance thresholds. Climate change is a global issue, and the cumulative impacts analysis has been addressed in the context of state regulations and regional plans designed to address the global cumulative impact. The following is a summary of the approach and extent of cumulative impacts, which are further detailed in each environmental topical section:

- **Aesthetics.** Aesthetic impacts are based on the City of Brea and its vicinity encompassing the cumulative project sites.
- **Agricultural Resources.** The area considered for cumulative impacts for this project is the County of Orange.
- **Air Quality.** Air quality impacts include regional (cumulative) impacts and localized impacts. For cumulative impacts, the analysis is based on the regional boundaries of the Southern California Air Basin (SoCAB).
- **Biological Resources.** The geographical area for cumulative analysis would encompass areas near the Chino Hills State Park and the Puente-Chino Hills wildlife corridor area.
- **Cultural and Paleontological Resources.** Cumulative impacts consider the potential for the proposed project in conjunction with other cumulative development projects in the city for historical, archaeological, and paleontological resources and for tribal cultural resources significant to local Native American tribes.
- **Energy.** Cumulative impacts are based on potential related development within each utility provider's boundaries—Southern California Edison, Southern California Gas Company.
- **Geology and Soils.** Geology and soils impacts are site specific, and the cumulative impacts area considered for geology and soils impact is limited to the project site boundaries.
- **Greenhouse Gas (GHG) Emissions.** GHG emissions impacts are not site-specific impacts but cumulative impacts. Therefore, the analysis in Section 5.8 provides the analysis to determine whether the project would make a cumulatively considerable contribution to a significant cumulative GHG emissions impact.
- **Hazards and Hazardous Materials.** Impacts are typically site specific and generally would not combine with impacts of other projects to result in cumulatively considerable impacts, but the cumulative impacts analysis in this EIR considers the combined effects of nearby past and reasonably foreseeable projects in conjunction with the project.
- **Hydrology and Water Quality.** Impacts are not site specific because stormwater runoff from the project site could impact downstream water quality and off-site drainage facilities. Cumulative impacts are based on the San Gabriel River-Coyote Creek Watershed and the Santa Ana River Watershed.
- **Land Use and Planning.** Cumulative impacts are based on applicable jurisdictional boundaries and related plans, including the City of Brea General Plan and regional land use plans (e.g., SCAG's RTP/SCS).

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- **Mineral Resources.** The cumulative impact area considered for mineral resources impacts is the City's incorporated areas.
- **Noise.** Cumulative traffic noise impacts are based on the traffic study, which considers the regional growth based on citywide and regional projections. Cumulative construction impacts are based on nearby projects that may have concurrent construction schedules. Cumulative operational impacts are based on existing development combined with the project and reasonably foreseeable nearby future development.
- **Population and Housing.** Cumulative impacts are based on demographic projections for the City of Brea.
- **Public Services.** Cumulative impacts are based on potential related development within each service provider's boundaries—Brea Fire Department, Brea Police Department, Brea-Olinda Unified School District, and Orange County Public Library.
- **Recreation.** The cumulative impact area considered for recreation is the City's incorporated and SOI areas.
- **Transportation.** The traffic study considers the project's cumulative contribution to traffic and transportation issues in the project vicinity. The cumulative levels of service (LOS) and vehicle miles traveled (VMT) traffic analysis is based on a regional transportation demand model and incorporates regional growth projections identified by Orange County Transportation Authority using the OCTAM 5.0 Year 2045 Model. The cumulative analysis of transit, bicycle, and pedestrian transportation impacts is based on City plans and policies. The traffic analysis includes background traffic growth using an ambient traffic growth factor (1 percent per year) to account for regular growth in traffic volumes due to the development of projects outside the study area as well as traffic growth from nine other known development projects (related projects) in the City of Brea and the surrounding cities, as shown in Table 4-1.
- **Tribal Cultural Resources.** Cumulative impacts related to tribal cultural resources are based on the local Native American tribes' culturally significant areas and include, but are not limited to, cultural landscapes and regions, specific heritage sites, and other tribal cultural places.
- **Utilities and Service Systems.** Cumulative impacts are based on potential related development within each utility provider's boundaries—e.g., Brea Public Works Department, Southern California Edison, Southern California Gas Company.
- **Wildfire.** Cumulative impacts related to wildfire are lands within Orange County that are categorized as state responsibility areas, federal responsibility areas, or very high fire hazard severity zones in a local responsibility area.