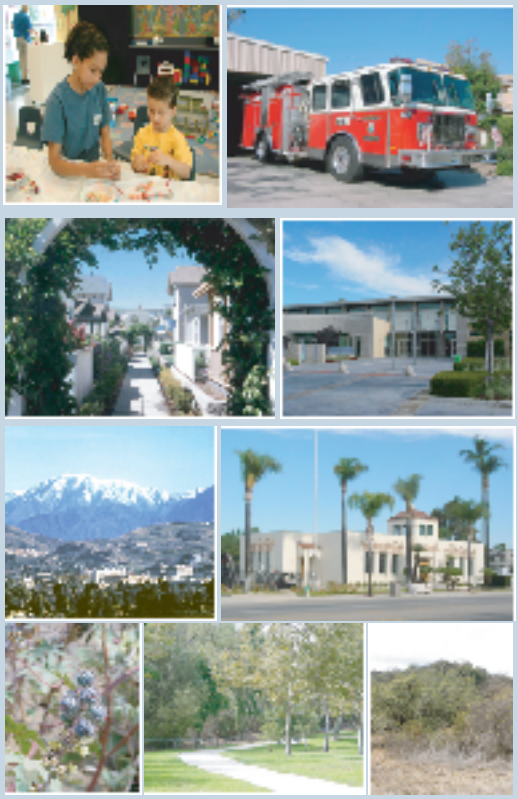
FINAL
ENVIRONMENTAL IMPACT REPORT

THE CITY OF BREA
GENERAL PLAN



Cotton/Bridges/Associates
A Division of P&D Consultants

BREA
GENERAL PLAN

Final Environmental Impact Report

BREA GENERAL PLAN

April, 2003

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Executive Summary

This Final Program Environmental Impact Report (EIR) has been prepared pursuant to the California Environmental Quality Act of 1970 (Public Resources Code Section 21000 et seq.) and the *Guidelines for Implementation of the California Environmental Quality Act* (CEQA Guidelines) published by the Public Resources Agency of the State of California (California Code of Regulations, Title 14, Section 15000 et seq.), and in accordance with the City of Brea's CEQA Guidelines. The City of Brea is the lead agency for this Program EIR, as defined in Section 21067 of CEQA.

The Final EIR includes comments and responses to comments received on the Draft EIR, which was circulated for public review beginning on January 31, 2003 and ending on March 17, 2003. The comments and responses to comments are presented in Section 8.0, Responses to Comments on Draft EIR, of this Final EIR. Revisions and clarifications made in response to the comments and information received on the Draft EIR are indicated by shading, as illustrated in this sentence. Revisions made for internal consistency, such as typographical errors, are not shaded.

The Project

The project examined in this EIR is the adoption and implementation of the City of Brea General Plan. The project also includes subsequent amendments to Title 20 (Zoning) of the Brea Municipal Code that are necessary to ensure consistency with the General Plan, and to implement the land use plan and policies contained in the General Plan. The Brea Towne Plaza Specific Plan will also be subsequently amended to achieve consistency with the land use policies and goals contained in the General Plan.

Project Location

Brea is located in the northeast corner of Orange County where the Orange County, Los Angeles County, and San Bernardino County boundaries converge. The City is bordered by unincorporated Orange County land and the Los Angeles County border to the north, Chino Hills State Park and the San Bernardino County border to the east, the cities of Yorba Linda, Placentia, and Fullerton to the south, and the city of La Habra to the west.

The Brea General Plan Planning Area consists of properties contained within the City's corporate limits and the City's sphere of influence. The entire Planning Area encompasses 14,482 acres, with 6,946 acres within the corporate limits and 7,536 acres within the sphere of influence. The sphere of influence includes unincorporated Orange County land that extends to the Los Angeles County border to the north and the San Bernardino County boundary to the east, including Chino Hills State Park and the Olinda Alpha landfill.

Purpose and Objectives of the General Plan

The General Plan establishes a comprehensive, long-term vision for Brea to guide planning decisions and physical development over a 20-year period. The principle goals set forth in the General Plan include the following:

- To create an inclusive community that strives to meet the needs of residents of all ages, income levels, occupations, family types, and lifestyles.
- To plan for sustainable stewardship of natural resources.
- To provide a range of mobility options that reduce dependence on the automobile.
- To maintain a sustainable economic base to provide a solid fiscal foundation and diverse employment opportunities, and to ensure the provision of quality community facilities.

The General Plan is divided into 5 chapters that contain goals and policies focused on achieving the City's objectives. The chapters and the key features of each are as follows:

Community Development

In the Community Development chapter, the Land Use section establishes the types and intensities of land use for both public and private land within the community, providing a guide for both new development and preservation of important community features. The land use designations in the General Plan provide a rational and ordered approach to development and maintenance of open space by identifying the types and nature of development permitted throughout the Planning Area. Although Brea is nearly built out within its corporate limits, the development potential exists, particularly in the sphere of influence and hillside areas. The General Plan identifies potential new growth in the hillsides and responds with policies to ensure proper land use planning.

The Circulation section addresses needed improvements to the existing transportation system, including roadways, transit, and pedestrian and bicycle paths, to meet increased demands over the next 20 years. The Circulation Plan indicates the City's intention to work with the Orange County Transportation Authority (OCTA) to amend the Master Plan of Arterial Highways (MPAH) to reclassify and delete selected MPAH facilities. In the Infrastructure section, goals and policies provide for long-term maintenance and enhancement of the water and sewer infrastructure, storm drains and channels, and telecommunications networks. The Urban Design component identifies ways to unify the city through architectural treatments, landscaping, streetscapes, and signage. The Economic Development section addresses enhancing Brea's already solid economic base. Growth management policies ensure that the transportation system and other public facilities will be able to accommodate the needs of Breans over the next 20 years.

Housing

In 2001, the Brea City Council adopted an updated Housing Element in compliance with the State's deadline for the SCAG region. No amendments to the element have been made as part of this current General Plan update program.

Community Resources

This chapter focuses on natural resource conservation, open space, and historic resource issues. Conservation issues include providing parks to meet the needs of all community residents, preserving scenic hillsides and ridgelines that form a visual backdrop to Brea, maintaining water quality, and working toward improving air quality. The importance of balancing new development with the needs of wildlife is also addressed. The Historic Resources section includes policies to recognize important buildings and places, and to preserve historic neighborhoods.

Community Services

Brea has an extensive community services system that offers residents many enrichment and basic needs programs. This chapter describes how the community services system will continue over the next 20 years. Key issues addressed include cultural arts, recreation programs, libraries, and human services, with a special emphasis on serving the youth and elderly. This chapter recognizes a strong public education system as a cornerstone of the community's foundation. The Education section emphasizes cooperative City/School District initiatives to further enhance the District's service to the community.

Public Safety

The Public Safety chapter identifies and addresses physical and human-made conditions within or near the City that represents a potential danger to residents, structures, public facilities, and infrastructure. This chapter establishes goals, policies, and plans to minimize the risk associated with crime, hazardous materials, geologic conditions, seismicity, flooding, and fires. Emergency preparedness planning, such as identifying actions needed to manage crisis situations, is also addressed. Community noise is considered a public safety issue, and this section examines ways to minimize the effects and extent of noise within Brea.

Required Actions

This EIR has been prepared to address the following actions by the City and others to adopt and implement the Brea General Plan:

Responsible Agency	Action
Brea City Council	Adoption of the General Plan
	Adoption of amendments to Title 20 (Zoning) of the Brea Municipal Code consistent with the General Plan
	Adoption of any ordinances, guidelines, programs, or other mechanisms that implement General Plan policy

Responsible Agency	Action
Brea Planning Commission	Recommendation to City Council to adopt the General Plan
	Recommendation to City Council to adopt amendments to Title 20 (Zoning) of the Brea Municipal Code consistent with the General Plan
	Recommendation to City Council to adopt any ordinances, guidelines, programs, or other mechanisms that implement General Plan policy
Other City Commissions	Adoption of ordinances, guidelines, programs, or other actions that implement the General Plan and General Plan policy
City Departments	Adoption of programs or other actions that implement the General Plan and General Plan policy
Others as necessary	Adoption of plans or programs tangential to the Brea General Plan

Significant, Unavoidable Environmental Impacts Associated with the Project

Adoption and long-term implementation of the Brea General Plan will result in the following significant, unavoidable environmental effects:

Transportation

Future traffic volumes associated with ambient growth and potential future development in the Carbon Canyon Specific Plan area are anticipated to result in an average daily volume that exceeds the existing and planned roadway capacity of Carbon Canyon Road between Valencia Avenue and Brea's eastern border. Such volumes cannot be carried without substantial improvements to Carbon Canyon Road which cannot be easily accomplished. Opportunities may exist for focused improvements to enhance safety, such as passing lanes at key locations. However, such improvements would not expand capacity to the point required to accommodate projected future traffic volumes. Hence, Carbon Canyon Road will experience an unmitigated deficiency, resulting in a significant and unavoidable impact.

Air Quality

Air pollutant emissions associated with new vehicle trips and stationary sources will result in emissions levels that exceed the thresholds established by the South Coast Air Quality Management District (SCAQMD) for reactive organic compounds (ROG) and particulate matter less than 10 microns in size (PM10). Stationary sources are defined by SCAQMD to be those sources that emit pollution from equipment or industrial or commercial processes. Despite efforts on the part of the City to reduce vehicle trips – including establishment of mixed-use land use areas – and its participation in regional efforts to improve air quality, impact relative to these pollutants will be significant and unavoidable.

Traffic associated with project implementation over the long-term could create carbon monoxide "hot spots" at the following intersections:

- Puente Street and Central Avenue
- Berry Street and Central Avenue
- State College Boulevard and Lambert Road
- Brea Boulevard and Imperial Highway

Potentially Significant Impacts that Can Be Mitigated

This EIR identifies the following areas of potentially significant impacts that can be mitigated to a less than significant level:

Noise

Over the long term, increasing traffic volumes will increase the ambient sound environment along the following street segments:

- Puente Street between Lambert and Central
- Lambert Road between Kraemer and Valencia
- Valencia Avenue between Imperial and Birch
- Carbon Canyon Road between Valencia and Lilac
- Carbon Canyon Road east of Lilac

This increase will result in sound levels exceeding the levels considered appropriate for residential land uses and will impact residences along these street segments. Mitigation measures include requiring developers to incorporate noise control measures in new developments that are adjacent to roadways with heavy noise pollution. Also, the City shall keep track of noise complaints generated from existing sensitive receptor sites and address compliance with current Health and Safety Code requirements pertinent to the particular land use. These mitigation measures will reduce the noise impact to a less than significant level.

Biological Resources

The introduction of residential and commercial uses into largely undisturbed areas will have a significant impact on sensitive vegetation communities and individual plant species, and eliminate habitat and food resources of sensitive animal species through the removal of vegetation communities. The majority of impacts to sensitive vegetation communities and wildlife species will occur as a result of project-specific activities developed pursuant to the General Plan. Thus, the City will assess development proposals for potential impacts to significant natural resources pursuant to the California Environmental Quality Act (CEQA) and associated State and federal regulations. The proximity of new residential and commercial land uses to wildlife corridors will increase the urban-wildlife interface and the viability of the wildlife corridors and their continued use by local and regional species. Mitigation measures will be required to minimize the impacts of development at the project level.

Aesthetics - Light and Glare

Development in previously undeveloped areas has the potential to create new lighting impacts associated with the introduction of vehicle headlights and nighttime lighting. New structures could create glare effects if they incorporate reflective building materials.

Cultural Resources

Unknown archaeological sites, structures, and fossils may be unearthed during excavation and grading activities for specific projects. The General Plan does not contain any goals or policies that specifically address archaeological and paleontological resources and their protection if they are encountered during any development activity. Review and protection are afforded by CEQA. Mitigation is recommended to ensure impacts to previously undocumented resources can be avoided.

Hazards and Hazardous Materials

General Plan policies allow oil and natural gas industries and other industries that use, store, transport, or generate hazardous materials to locate within areas designated General Industrial or Light Industrial on the land use policy map. These designations will keep industrial activities separate from residential uses. The long-term extraction and ancillary operations in hillside areas are permitted to continue as "grandfathered" uses. Hazardous conditions associated with new oil and natural gas production will not increase with implementation of the General Plan because expansion of existing operations is not anticipated. However, residential development in the hillside areas adjacent to a natural gas plant or soil gas seepage zone could pose a hazard to human health and safety.

Hydrology

Implementation of the General Plan will not put structures at risk for flooding or inundation. However, project-level mitigation measures will be required for specific development proposals within the 100-year flood zone.

Impacts Considered in this EIR but Found to Be Less than Significant

The analysis contained in this EIR indicates that the project will not have a significant impact with respect to the following:

Transportation

Traffic volumes will increase along many roadways in Brea due to new development built pursuant to the General Plan. The analysis shows that the following 13 intersections may be particularly congested or experience decreased level of service (refer to section 3.2 Transportation/Traffic for a discussion of level of service):

- Brea Blvd & Central/College – LOS F in P.M.
- State College & Lambert – LOS F in P.M.
- SR-57 NB Ramps & Lambert – LOS E in A.M.
- Kraemer Blvd & Lambert – LOS F in A.M. and LOS F in P.M.
- Brea Blvd & Birch – LOS E in P.M.
- State College Blvd & Birch – LOS E in P.M.
- Kraemer Blvd & Birch – LOS F in A.M. and LOS in P.M.
- Puente & Imperial Highway – LOS E in P.M.
- Berry & Imperial Highway – LOS E in P.M.
- Brea Blvd & Imperial Highway – LOS F in A.M. and LOS E in P.M.
- Randolph Ave & Imperial Highway – LOS E in P.M.
- State College & Imperial Highway – LOS F in A.M. and LOS F in P.M.
- Kraemer and Imperial Highway – LOS F in P.M.

However, implementation of the Brea Nexus Program will ensure that all intersections within Brea operate at their associated level of service standards. Funding through traffic impact fees will provide for traffic improvements, such as intersection restriping (change in lane deployment), additional left-turn lane, additional through lane, dedicated right-turn lane, signal coordination, signal operation change, interchange ramp modification, and various roadway enhancements, at these and other identified intersections in Brea.

Land Use Compatibility/Consistency with Regional Plans

The General Plan land use policy is focused on ensuring long-term land use compatibility and does not propose any substantial alteration to existing land use patterns. In addition, the General Plan preserves wildlife corridors and sensitive vegetation communities in accord with the Orange County Northern Subregion of the Southern California Coastal Sage Scrub Natural Community Conservation Planning program.

Aesthetics

Implementation actions of the General Plan call for the City to revise the Hillside Development Ordinance to ensure it reflects and implements hillside protection policies. Individual development proposals will be required to comply with the goals and polices and implementing actions of the General Plan.

Geology/Soils

Brea is located in Southern California, which is subject to seismic events and groundshaking. Therefore, the General Plan does not pose an unusual risk to seismic factors and development pursuant to implementation of the General Plan will comply with all requisite State and local seismic safety standards. Continued implementation of standard erosion control and engineering techniques during construction of individual projects will reduce the impact to a less than significant level. The City currently requires geological and geotechnical investigations of all new development in seismic and geologic hazard areas.

Wildland Fires

New development in the hillside areas will create increased fire hazards because it will place residential units in the highly flammable open grasslands. The City will continue to reduce the potential for dangerous fire by coordinating with the Brea Fire Department and the Orange County Fire Authority to implement fire hazard education, fire protection, and fuel modification programs. The City will also work closely with the local water districts and the County to ensure that water pressure is adequate for fire fighting purposes. Development proposals within high fire hazard areas will be required to provide appropriate and adequate safeguards and response capabilities to prevent loss of structures and to ensure that established development does not experience reduced fire fighting service.

Utilities and Service Systems

Although implementation of the General Plan will result in new development, water conservation measures will balance demand. The General Plan action programs call for the City to implement the recommendations of the *Sewer Master Plan*, ensuring a less than significant impact on the wastewater and drainage system. Brea Disposal will continue to provide recycling and waste disposal service through 2007, and the City will continue to implement solid waste reduction programs in compliance with AB 939.

Population and Housing

The population of Brea is expected to increase by approximately 13,626 persons to a total population of 50,483 in 2020. New residential development is anticipated to increase the housing stock up to 19,079 units. The General Plan allows for moderate, balanced, and manageable growth supported by adequate infrastructure.

Public Services/Recreation

The City will evaluate the need for additional police and fire facilities to serve new development. The City is precluded from denying development projects based on potential school impacts. However, per SB 50 (Government Code Section 65995), the payment of development fees will offset the costs to the District of providing educational facilities to these students. All new development, particularly developers of new housing, will pay Orange County Library impact fees prior to the issuance of building permits to offset the costs of providing additional library resources for new residents and employees of local businesses. All new major residential development projects will be encouraged to include parkland as part of the development in accordance with City development standards.

Impacts Considered in the Initial Study and Found Not to Be Potentially Significant

The Initial Study (See Appendix A) prepared for the project found that the project poses a less than significant impact or no significant impact with regard to:

- Agriculture Resources
- Air Quality: conflict with applicable Air Quality Plan or create objectionable odor
- Historic Resources
- Geology and Soils: septic tanks
- Hazards and Hazardous Materials: airport and emergency response plan
- Hydrology: drainage patterns, water quality, and inundation
- Land use: divide established community or conflict with applicable land use plan
- Noise: conflict with an airport or private airstrip
- Population and Housing: displace substantial number of existing housing or people
- Transportation and Traffic: conflict with air traffic patterns and adopted regional plans
- Utilities and Service Systems: violate wastewater treatment and solid waste regulations

Alternatives to the Project

Through comparison of potential alternatives to the proposed project, the relative advantages of each can be weighed and analyzed. The CEQA Guidelines require that a range of alternatives addressed be "governed by a rule of reason that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice" (Section 15126.6[a]). This EIR does not consider an alternative site because the project involves all properties within Brea and its sphere of influence.

The following alternatives are examined in this EIR:

No Project--Maintain Existing General Plan: If the General Plan is not adopted, the existing General Plan would remain effective, and new development would occur in accordance with the existing General Plan. This alternative would result in more fragmented land uses because the existing General Plan does not encourage clustering of development in hilly areas and does not provide for

the extent of mixed use development associated with the proposed Plan. Impacts with respect to traffic, scenic resources, biological resources, air quality, and noise would be greater under this alternative.

Reduced Extent of Mixed Use I: Under this alternative, South Brea Boulevard would not be designated Mixed Use I. Instead, it would be designated Mixed Use II, and the extent of development would be greatly decreased. Traffic volumes along South Brea Boulevard would be less than those associated with the proposed General Plan. As a result, air quality and noise impacts would also be reduced. Therefore, this alternative would have a reduced overall environmental impact compared to the proposed General Plan. This alternative, as well as the proposed General Plan, would accomplish the objectives of the City.

Reduced Density for Hillside Development: This alternative assumes a reduced intensity of development in the hillside areas such that development would be limited to 1 unit per 20 acres, with no clustering option. This alternative would reduce the amount of development in the hillsides and result in a greater amount of open space between development sites. However, open space areas would be fragmented by dispersed development, which would have a significant impact on sensitive vegetation communities and animal species. Traffic volumes would be expected to decrease as a result of the reduction in overall development amounts; therefore, noise and air quality impacts associated with traffic volumes would be expected to decrease. However, additional roadway building would be required to serve the more dispersed development. Compared to the proposed General Plan, significant environmental impacts from increased lighting in undeveloped areas, longer emergency response times, and fragmented wildlife corridors would result.

Reduced Extent of Mixed Use II: This alternative assumes that the northwest corner of Puente Street and Central Avenue would not be designated Mixed Use II. The area would retain its existing designation as Neighborhood Commercial. Buildout of the site with commercial uses would increase traffic generation and result in additional localized air quality and noise impacts compared to the proposed General Plan. This alternative would have a greater overall environmental impact than the proposed General Plan.

Cumulative Impact

The CEQA Guidelines define cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects…results from the incremental impact of the (proposed) project when added to other closely related past, present, and reasonably foreseeable…future projects. A cumulative impact can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines, Section 15355).

The General Plan addresses growth throughout Brea and its sphere of influence over a 20-year planning period. Thus, there are no "related projects" in the community to be considered. In addition to estimating the number of trips associated with buildout in accordance with General Plan policy, the traffic analysis conducted for the EIR also accounts for the modest growth that will occur

in communities surrounding Brea. The project, both by itself and in the cumulative context, will result in unavoidable significant air quality impacts and traffic impacts on Carbon Canyon Road.

Areas of Controversy and Issues to be Resolved

Through the Notice of Preparation process for the Draft General Plan, concerns were raised regarding long-term traffic (Section 3.2), aesthetics (Section 3.6), solid waste (Section 3.11, Utilities/Service Systems), and biological resources (Section 3.5) impacts. These issues are examined in the EIR. During community workshops on the General Plan, the public also expressed concern regarding the Mixed Use I designation along South Brea Boulevard and the Mixed Use II designation for the parcel at the northwest corner of Puente Street and Central Avenue. These latter two issues are addressed in the Alternatives section of this EIR.

Summary of Impacts

Table ES-1 beginning on the following page summarizes the environmental effects associated with long-term implementation of the General Plan, the mitigation measures required to avoid or minimize impact, and the level of impact following mitigation.

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Impact Category	Potential Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Unavoidable Significant Environmental Impacts (Lead Agency must issue "Statement of Overriding Considerations" under Section 15093 and 15126[b] of the State CEQA Guidelines if the agency determines these effects are significant and approves the project.)			
Transportation	Increased traffic volumes associated with ambient growth and potential future development in the Carbon Canyon Specific Plan Area will result in exceeded roadway capacity at Carbon Canyon Road between Valencia Avenue and Brea's eastern edge.	No feasible mitigation is available because of topographical and right-of-way constraints.	Significant
Air Quality– Project Level	Air pollutant emissions associated with new vehicle trips and stationary sources will result in emissions levels that exceed the thresholds established by SCAQMD for reactive organic compounds (ROG)and particulate matter (PM10).	1. The City shall reduce vehicle emissions caused by traffic congestion by implementing transportation systems management techniques that include synchronized traffic signals and limiting on-street parking. 2. The City shall encourage major employers, tenants in business parks and other activity centers, and developers of large new developments to participate in transportation management associations. 3. The City shall consider the feasibility of diverting commercial truck traffic to off-peak periods to alleviate non-recurrent congestion as a means to improve roadway efficiency. 4. The City will encourage the incorporation of energy conservation techniques (i.e. installation of energy saving devices, construction of electric vehicle charging stations, use of sunlight-filtering window coatings or double-paned windows, utilization of light-colored roofing materials as opposed to dark-colored roofing materials, and placement of shady trees next to habitable structures) in new developments. 5. The City will encourage the incorporation of bus stands, bicycle racks, bicycle lanes, and other alternative transportation related infrastructure in new developments.	Significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Impact Category	Potential Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Air Quality – CO hotspots	Carbon monoxide (CO) hotspots will result from increased vehicular traffic and affect future sensitive receptors that may locate at the following intersections: Berry/Central, Puente/Central, and Brea Boulevard/Imperial Highway	6. For any new development proposed to locate within approximately 150 feet of the Puente/Central and Brea Boulevard/Imperial Highway intersections in which sensitive receptors generally reside (i.e. residences), the developer shall be responsible for ensuring air-tight construction. Air conditioning must be provided so that open windows will not be relied upon for cooling in the summer. 7. As part of its continuing program to enhance traffic flow citywide, the City will monitor conditions at the Central/Berry and Central/Puente intersections to ensure that air quality impacts are minimized through traffic signal timing and, if necessary, physical changes to the intersection (e.g., restriping).	Significant
Air Quality – CO hotspots	Carbon monoxide (CO) hotspots will result from increased vehicular traffic and affect existing sensitive receptors at the following intersections: State College/Lambert and Berry/Central	8. Improvement plans for the Lambert/SR-57 interchange will include complementary enhancements to the State College/Lambert intersection to improve its efficiency. Potential enhancements may include an additional northbound turn lane on State College and improved signal timing.	Significant
Significant Environmental Impacts That Can Be Avoided or Mitigated (Section 15126[a] of the State CEQA Guidelines)			
Noise	Long-term increasing traffic volumes on noise-sensitive uses could exceed acceptable levels for residential uses along Lambert Road between Kraemer & Valencia, Puente Street between Lambert & Central, and Valencia Avenue between Imperial Highway & Birch.	1. The City will require applicants/developers to perform site-specific acoustical analyses for future residential, mixed-used, and other noise-sensitive land uses proposed to be located along Lambert Road, Valencia Avenue, and Puente Street. Consistent with the recommendations of such analyses and as directed by City staff, applicants/developers shall design and construct noise control measures such as berms and walls; incorporate sound-attenuating architectural design and construction methods; and include increased setback allowances to minimize noise impacts to residential units.	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Impact Category	Potential Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Noise		2. The City will keep records of noise complaints from existing sensitive receptor sites along Puente Street and Lambert Road. If, over time, complaints increase substantially and noise levels can be attributed to traffic volumes on adjacent roadways, the City will address compliance with Health and Safety Code requirements pertinent to the particular land use at that point in time. Means of addressing noise issues could include, but are not limited to, providing information to property owners regarding sound insulation approaches or requiring high-volume traffic generators to fund noise reduction programs.	
Biological Resources	Introduction of residential and commercial uses into largely undisturbed areas will have a significant impact on sensitive vegetation communities and individual plant species, eliminate habitat and food resources of sensitive animal species, and increase the urban-wildlife interface and the viability of the wildlife corridors.	1. Retention of rare communities shall be incorporated into building and project design to the maximum extent practical. Rare communities include oak, riparian and wetland, walnut woodland, and coastal sage scrub. If retention is not practical, healthy specimens shall be relocated and/or replaced. 2. Developers will be required to restore and re-vegetate where the loss of small and/or isolated habitat patches is proposed. 3. If construction activity is timed to occur during the nesting season (typically between March 1 and July 1), developers will be required provide focused surveys for nesting birds pursuant to California Department of Fish and Game requirements. Such surveys shall identify avoidance measures taken to protect active nests. 4. Removal of nonnative trees shall be permitted only outside the nesting season. 5. Any crushing of existing habitat during the breeding season of the gnatcatcher shall occur only under the supervision of a biological monitor.	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Impact Category	Potential Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Biological Resources		6. Preserved and/or protected areas will be identified by the project biologist and isolated with construction fencing or similar materials prior to clearing or grading activities. Protected areas include existing woodland and coastal sage scrub adjacent to revegetation areas and individual trees and patches of native habitat to be preserved within revegetation areas. 7. Vehicles will not be allowed to operate within the drip line of preserved trees. 8. Erosion control measures, including silt fencing, shall be installed at the discretion of the project biologist to contain sediments within graded areas. Silt fencing shall be semi-permanently installed at the boundary between upland revegetation areas and existing riparian habitat until vegetation is sufficiently established in the revegetation zone to prevent erosion. 9. Construction equipment shall be restricted to designated areas and roads approved by the project biologist. Only low dispersal weight vehicles (less than 20 pounds per square inch) will be permitted to operate within riparian areas. 10. Maintenance and refueling of construction equipment shall be limited to areas specified by the project biologist. Storage of potentially hazardous materials, including but not limited to fuel, paint, stains, pesticides, herbicides, solvents, and oils, will not be permitted within 50 feet of any riparian zone. During construction, disposal of such materials shall be permitted only in controlled areas that are physically separated from potential stormwater runoff. 11. Lighting in residential areas and along roadways shall be designed to prevent artificial lighting from reflecting into adjacent natural areas.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Impact Category	Potential Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Aesthetics—Light and Glare	Development in previously undeveloped areas has the potential to create new lighting impacts associated with the introduction of vehicle headlights and nighttime lighting	1. For all development proposals, the City will examine potential light and glare effects associated with structures and on-site activities, and will ensure that features are incorporated into projects to avoid any diverse light and glare impacts.	Less than significant
Cultural Resources	Unknown archaeological sites, structures, and fossils may be unearthed during excavation and grading activities for specific projects.	1. City staff may require applicants for development permits to provide studies to document the presence/absence of archaeological and paleontological resources. Studies will be required in areas with documented or inferred resources present. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified specialist. 2. All archaeological resources shall be subject to the provisions of CEQA (Public Resources Code Section 21083.2).	Less than significant
Hazards and Hazardous Materials	Residential development in the hillside areas adjacent to a natural gas plant or soil gas seepage zone could pose a hazard to human health and safety.	1. No residential structures shall be constructed within 10 feet of an abandoned well or within 100 feet of an operating well. 2. Prior to obtaining grading permits, a soil gas survey shall be conducted in accordance with the Orange County Fire Authority (OCFA) and the Brea Fire Department guidelines to determine whether or not there is methane and/or other combustible soil gases at concentrations of concern at the site. The survey shall evaluate the areas around the old, abandoned wells as well as any and all locations identified by the City's combustible soil gas consultant.	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Impact Category	Potential Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Hazards and Hazardous Materials		3. Samples shall also be collected at depth below final design grades as determined by a registered professional engineer with experience in the field of combustible soil gas control and mitigation systems. Said survey is subject to third party review by the City's combustible soil gas consultant. Mitigation measures will be required if methane gas at concentrations over 5,000 parts per million is detected at the site, in accordance with the guidelines established by OCFA and the City of Brea Fire Department, as appropriate. 4. Prior to obtaining grading permits, site development plans must comply with the Brea Fire Department's requirements and OCFA guidelines for the investigation, mitigation, and remediation of combustible soil gases. These requirements are outlines in the County Fire "Guidelines for Combustible Soil Gas Hazard Mitigation" and the City of Brea Fire Department "Combustible Soil Gas Mitigation System Installation and Inspection Requirements." In addition, if hydrocarbon concentrations in excess of 20,000 parts per million are left in place below 10 feet below grade surface, OCFA will require documentation that shows that the contamination will not create a methane gas problem. 5. Mitigation measures regarding combustible soil gases shall be provided in accordance with City of Brea Fire Department's requirements and OCFA Guidelines. They may include but may not be limited to: sub-slab passive venting systems, sub-slab membranes, bottoms mitigation measures and venting of abandoned wells. This program shall be submitted to the Director or designee, Development Services Department within 60 days of completion of grading for review/approval.	

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Impact Category	Potential Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Hydrology	Project-level mitigation measures will be required for specific development proposals within the 100-year flood zone.	1. Any development proposed within a designated 100-year flood zone shall be required to utilize design and site planning to ensure that structures are elevated at least one foot above the 100-year flood zone. 2. Necessary storm drain improvements identified in the *Sewer Master Plan* shall be implemented as demand requires and funds are available.	Less than significant
Impacts Considered but Found to Be Less Than Significant			
Transportation	Increased traffic volumes resulting from development pursuant to the General Plan and surrounding ambient growth will impact some intersections. However, Brea's Nexus Program ensures the implementation of intersection improvements through the use of traffic impact fees.	No mitigation is required	Less than significant.
Land Use	The General Plan does not propose any substantial alteration to existing land use patterns, and it preserves wildlife corridors and sensitive vegetation communities in accord with Natural Community Conservation Planning program.	No mitigation is required.	Less than significant
Aesthetics	Implementation actions of the General Plan call for the City to revise the Hillside Development Ordinance to ensure it reflects and implements hillside protection policies. Individual development proposals will be required to comply with the goals and polices and implementing actions of the General Plan.	No mitigation is required.	Less than significant
Geology/Soils	The City requires geological and geotechnical investigations of all new development in seismic and geologic hazard areas.	No mitigation is required.	Less than significant

Table ES-1
Summary of Environmental Impacts and Mitigation Measures

Impact Category	Potential Environmental Impact	Mitigation Measures	Level of Impact after Mitigation
Wildland Fires	Development proposals within high fire hazard areas will be required to provide appropriate and adequate safeguards and response capabilities to prevent loss of structures and to ensure that established development does not experience reduced fire fighting service.	No mitigation is required.	Less than significant
Utilities and Service Systems	The City will continue to enforce water conservation measures and solid waste reduction programs. Staff will also implement *Sewer Master Plan* recommendations.	No mitigation is required.	Less than significant
Population and Housing	General Plan allows for moderate, balanced, and manageable growth supported by adequate infrastructure.	No mitigation is required.	Less than significant
Emergency Services	City will evaluate the need for additional police and fire facilities to serve new development.	No mitigation is required.	Less than significant
Schools	Payment of development fees will offset the costs to the District of providing educational facilities to these students.	No mitigation is required.	Less than significant
Libraries	New development will pay Orange County Library impact fees to offset the costs of providing additional library services.	No mitigation is required.	Less than significant
Recreation	With implementation of the General Plan, Brea will still exceed its minimum park service standard of 5 acres per 1,000 residents. All new major residential development projects will be encouraged to include parkland in accordance with City regulations.	No mitigation is required.	Less than significant

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Introduction

Purpose of the EIR

This Final Program Environmental Impact Report (EIR) is a first-tier evaluation of the environmental effects associated with the adoption and implementation of the Brea General Plan by the City of Brea. The City completed a General Plan in November of 2002. The adoption and implementation of a General Plan constitutes a project for the purposes of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

According to the *Guidelines for Implementation of the California Environmental Quality Act*, an "EIR is an informational document which will inform public agencies, decision makers, and the public generally of the significant environmental effects of a project on the environment, identify possible ways to minimize the significant effects, and describe alternatives to the project."

Accordingly, this Final EIR is an informational document to be used by decision makers, public agencies, and the general public. It is not a policy document of the City of Brea. The document provides information regarding the potential environmental impacts related to implementation of the General Plan.

The Final Program EIR will be used by the City of Brea in assessing impacts of the proposed project. During the implementation process, mitigation measures identified in the Final EIR will be applied to the project.

The Final EIR includes comments and responses to comments received on the Draft EIR which was circulated for public review from January 31, 2002 to March 17, 2003. Comments made during the public review period are included in Section 8.0, Responses to Comments on Draft EIR, of this Final EIR. Revisions and clarifications to the EIR made in response to comments and information received on the Draft EIR are shaded, as illustrated in this sentence. Revisions made for internal consistency, such as typographical errors, are not shaded.

Legal Requirements

This Program EIR has been prepared in accordance with the California Environmental Quality Act of 1970 (Public Resources Code, Section 21000 et seq.) and the *Guidelines for Implementation of the California Environmental Quality Act* (CEQA Guidelines) published by the Public Resources Agency of the State of California (California Code of Regulations, Title 14, Section 15000 et seq.), and in accordance with the City of Brea's CEQA Guidelines. The City of Brea is the lead agency for this Program EIR, as defined in Section 21067 of CEQA.

Pursuant to CEQA and the CEQA Guidelines, an Initial Study was prepared for this project. The Initial Study concluded that the General Plan might have a significant effect on the environment. The Initial Study checklist is included in Appendix A of this EIR. A Notice of Preparation (NOP) for

this EIR was issued by the City in June of 2002 in accordance with the requirements of the California Code of Regulations, Title 14, Sections 15082(a), 15103, and 15375. The NOP indicated that an EIR was being prepared and invited comments on the project from public agencies and the general public.

This EIR constitutes a Program EIR under the provisions of Section 15168 of the State CEQA Guidelines. A Program EIR allows for review of a series of contemplated actions. The City and other agencies will be able to use information presented in this Program EIR to determine if additional environmental review is required for subsequent actions linked to the project. Under Section 15168, if an agency determines that a program or action will result in impacts within the scope of impact reported in the EIR and that no further mitigation is required, the agency may deem the subsequent project within the scope of the EIR, and no further environmental review will be required.

This EIR was prepared by environmental planning consultants under contract to the City of Brea and under the direction of City staff. All information, analysis, and conclusions contained in this document reflect the independent review and judgment of the City.

Scope of the Project

The project analyzed in this EIR is the adoption and implementation of the General Plan to guide planning decisions in Brea over a 20-year period. The General Plan is a comprehensive, long-term guide for the physical development of the incorporated City and its sphere of influence. The Planning Area consists of properties contained within the City's corporate limits and the City's sphere of influence, which is located between the City's northern border and the Los Angeles County boundary. The entire Planning Area encompasses 14,482 acres, with approximately 6,946 acres within the City's corporate limits and the additional 7,536 acres within the sphere of influence.

Scope of the Environmental Analysis

Pursuant to CEQA and the CEQA Guidelines, an Initial Study was prepared for this project. The Initial Study concluded that the proposed General Plan might have a significant effect on the environment with respect to the following:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Hazards and Hazardous Materials
- Hydrology
- Land Use
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

Appendix A contains the Initial Study and NOP for the project. Appendix B contains the Traffic Study. Appendix C contains the air quality worksheets. All other reference documents cited in the

EIR are on file with the City of Brea Development Services Department, Civic and Cultural Center, 1 Civic Center Drive, Brea, CA 92821.

Intended Uses of the EIR

This Program EIR will be used by the City and other responsible agencies to provide information necessary for environmental review of discretionary actions related to adoption of the General Plan and any subsequent amendments to Title 20 of the Municipal Code to achieve consistency with the General Plan, and related provisions that implement the General Plan. The EIR may be used by the following agencies for the following discretionary actions:

Responsible Agency	Action
Brea City Council	Adoption of the General Plan
	Adoption of amendments to Title 20 (Zoning) of the Brea Municipal Code consistent with the General Plan
	Adoption of any ordinances, guidelines, programs, or other mechanisms that implement General Plan policy
Brea Planning Commission	Recommendation to City Council to adopt the General Plan
	Recommendation to City Council to adopt amendments to Title 20 (Zoning) of the Brea Municipal Code consistent with the General Plan
	Recommendation to City Council to adopt any ordinances, guidelines, programs, or other mechanisms that implement General Plan policy
Other City Commissions	Adoption of ordinances, guidelines, programs, or other actions that implement the General Plan and General Plan policy
City Departments	Adoption of programs or other actions that implement the General Plan and General Plan policy
Others as necessary	Adoption of plans or programs tangential to the Brea General Plan

Public Review and Comment

This Draft EIR was circulated for a 45-day public review period. The public was invited to comment in writing on the information contained in this document. Persons and agencies commenting were encouraged to provide information that they believe was missing from the Draft EIR, or to identify where the information could be obtained. All comment letters received were responded to in writing, and comment letters, together with the responses to those comments, are included in Section 8.0, Responses to Comments on Draft EIR, of this Final EIR.

The Draft EIR and supporting documentation were available for public inspected at the City of Brea Development Services Department and the Brea Library, both located in the Civic and Cultural Center at 1 Civic Center Drive, Brea, and on the worldwide web at http://www.cityofbrea.net.

Contact Person

The primary contact person regarding information presented in this EIR is Karen Haluza, AICP, Senior Planner, Development Services Department. Ms. Haluza may be reached at (714) 990-7674, or via email at karenh@ci.brea.ca.us.

1.0 Project Description

The Project

The proposed project is the adoption and implementation of the City of Brea General Plan. The General Plan addresses the seven State mandated general plan elements (land use, housing, circulation, safety, open space, conservation, and noise) and the growth management element mandated by Orange County, as well as other issues that are important to the community. The General Plan is organized into the following chapters: Community Development, Housing, Community Resources, Public Safety, and Community Services. An Implementation Program provides strategies to implement the adopted policies set forth in each of the General Plan chapters. As noted in the Introduction to this EIR, the Housing Element was updated in 2001 and has not been amended as part of this program.

The General Plan will guide the physical development of Brea over the next 20 years. The General Plan also establishes a vision for the City, emphasizing Brea's desire to preserve and build on those characteristics that make it distinct: diverse residential neighborhoods, a range of commercial and industrial business opportunities, a commitment to high levels of public services, quality parks, unique cultural arts programs, and the preservation of hillside areas that provide habitat value and scenic resources.

Regional Setting

Brea is located in the northeast corner of Orange County where the Orange County, Los Angeles County, and San Bernardino County boundaries converge. The City is bordered by unincorporated Orange County land and the Los Angeles County border to the north, Chino Hills State Park and the San Bernardino County border to the east, the cities of Yorba Linda, Placentia, and Fullerton to the south, and the city of La Habra to the west. The Orange Freeway (SR-57) bisects Brea from north to south. The three major east-west roadways are Imperial Highway (SR-90), Carbon Canyon Road (SR-142), and Lambert Road. Figure 1 shows the city's location in a regional context and outlines the General Plan Planning Area.

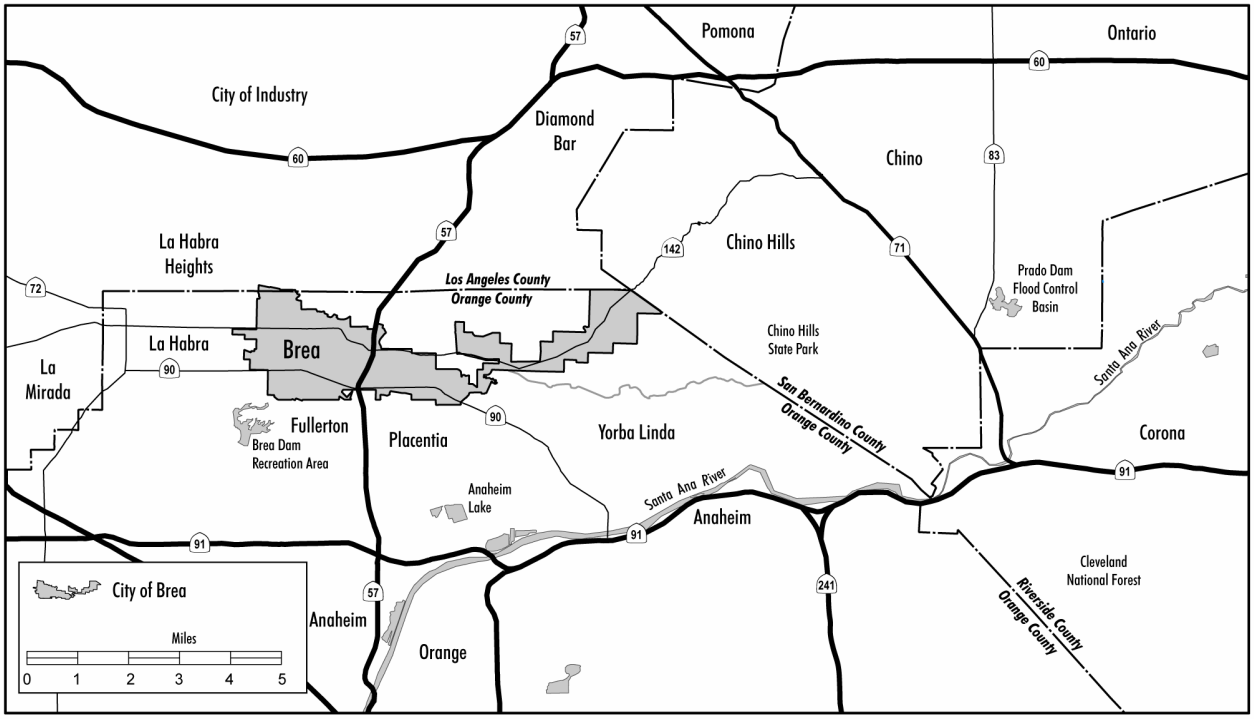


Figure 1
General Plan Planning Area

Brea Planning Area

The Brea General Plan Planning Area consists of properties contained within the City's corporate limits and the City's sphere of influence. The sphere of influence includes unincorporated Orange County land that extends to the Los Angeles County boundary to the north and the San Bernardino County boundary to the east, including Chino Hills State Park and the Olinda Alpha landfill. The entire Planning Area encompasses 14,482 acres, with 6,946 acres within the City corporate limits and 7,536 acres within the sphere of influence.

Purpose and Objectives of the General Plan

The General Plan establishes a comprehensive community vision for Brea for land use, housing, circulation, safety, open space, conservation, noise, and growth management. The vision of the community is developed based on the following:

- Communities that promote intersection rather than isolation provide a mixture of daily essentials such as jobs, homes, schools, parks, and public areas and services to offer a higher quality of life to a wider range of the population. These communities emphasize the use of public, as well as private, spaces. Open spaces that serve the community in terms of parks, squares, streets, and trails should be designed to be inviting and attractive places open to all.

- Rather than manipulate the surrounding environment, great communities respect natural terrain, drainage, habitat, and resources to allow the landscape to function as naturally and efficiently as possible. Wherever possible, communities should strive to minimize impacts on the natural environment through resource conservation, energy and water efficiency, and recycling and reuse of materials.

- Transportation systems should emphasize pedestrian, transit, bicycle, and automobile access. These different uses should be encouraged through compact and mixed-use land use patterns that provide jobs, services, and housing within close proximity for residents of all ages and income levels. Providing an integrated network of pedestrian, bicycle, and transit routes encourages reduced dependence on automobile use and enhances community interaction.

- Providing a vital and diverse economic climate that meets the needs of residents and local business is an important component of any community. For economies to remain sustainable, they must remain responsive to evolving needs and offer opportunities to expand and diversify.

Based on these themes, the General Plan expresses the community's long-term goals and policies through text and maps. The principal goals set forth in the General Plan are:

- To create an inclusive community that strives to meet the needs of residents of all ages, income levels, occupations, family types, and lifestyles.

- To plan for the sustainable stewardship of natural resources.

- To provide a range of mobility options that reduce dependence on the automobile.

- To maintain a sustainable economic base to provide a solid fiscal foundation and diverse employment opportunities, and to ensure the provision of quality community facilities.

The General Plan includes policies and implementation programs designed to achieve these goals. The actions recommended in the Implementation Plan will serve as the basis for making future programming decisions related to the assignment of staff and the expenditure of City funds.

Project Characteristics

In terms of guiding the physical development of the City, the General Plan components of most importance are the Land Use and Circulation elements, both contained in the Community Development chapter of the General Plan. The remaining chapters of the General Plan are Housing, Community Resources, Public Safety, and Community Services. The Plan also contains an Introduction chapter that establishes the planning context for Brea and defines the four overarching principles guiding planning and decision making.

Community Development

In the Community Development chapter, the Land Use section establishes the types and intensities of land use for both public and private land within the community, providing a guide for both new

development and preservation of important community features. The General Plan establishes several land use designations. These designations provide a rational and ordered approach to development and maintenance of open space by identifying the types and nature of development permitted throughout the Planning Area. The General Plan land use designations are grouped into residential and non-residential categories.

The residential categories are:

- Hillside Residential (density based on slope and site features)
- Very Low Density Residential (maximum 2 units/acre)
- Low Density Residential (maximum 6 units/acre)
- Medium Density Residential (maximum 12 units/acre)
- High Density Residential (maximum 24.89 units/acre)

Commercial and industrial designations include the following, with the maximum intensities expressed in terms of floor-area ratio, or FAR:

- Neighborhood Commercial (0.35 FAR)
- General Commercial (0.5 FAR)
- Regional Commercial (0.65 FAR)
- Recreational Commercial (0.4 FAR)
- Office/Financial Commercial (1.5 FAR)
- Light Industrial (0.75 FAR)
- General Industrial (0.75 FAR)

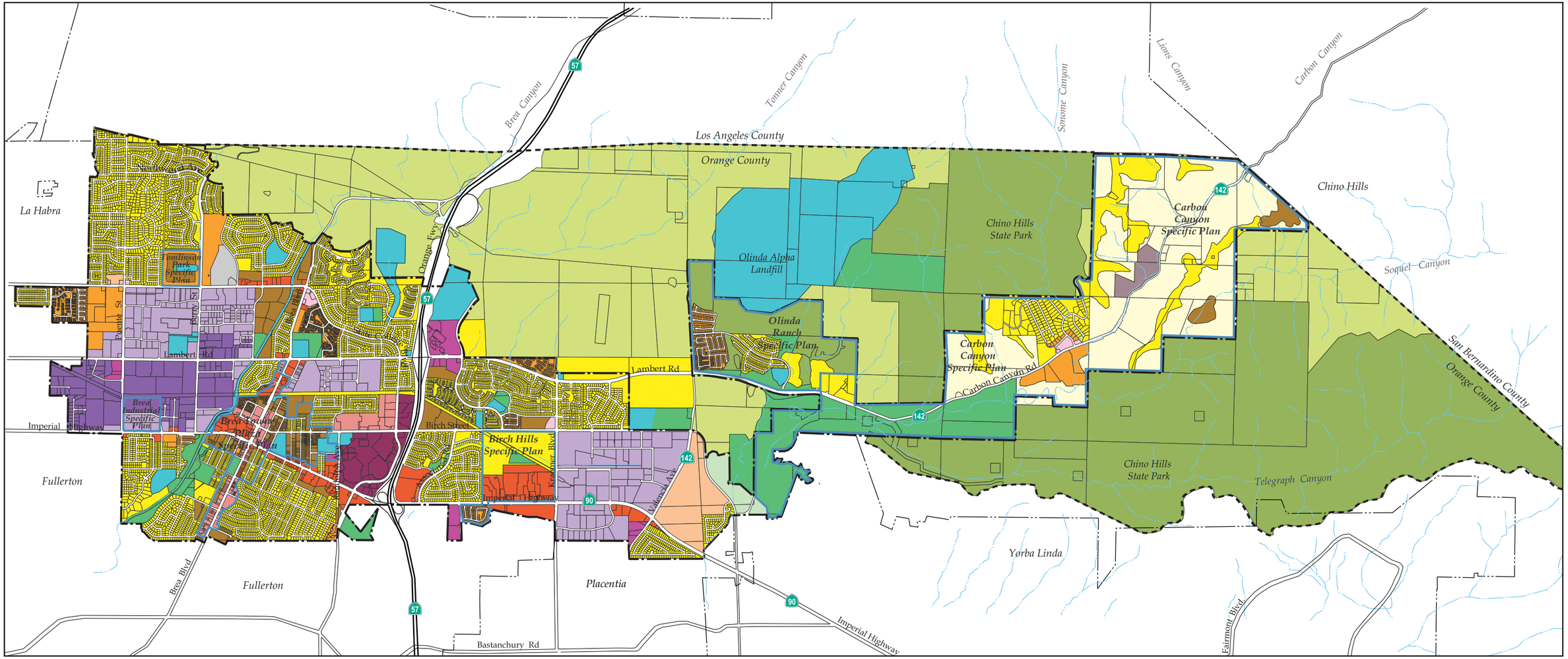
Designations to accommodate public and open space uses are Public Facilities, Parks and Recreation, Natural Open Space, Agriculture, and Cemetery. The General Plan provides two designations to encourage compact, pedestrian-oriented development. Mixed Use I provides for areas of intense, mixed-use urban environments that offer opportunities for people to live, work, shop, and recreate without having to use their cars. Mixed Use I includes the following maximum intensities:

- 12.1 – 50 du/acre
- Approximately 135 persons/acre
- 3.0 FAR

The Mixed Use II designation provides opportunities for the coordinated development of urban villages that offer a diverse range of complementary land uses in close proximity to one another. Mixed Use II includes the following maximum intensities:

- 6.1 – 40 du/acre
- Approximately 108 persons/acre
- 2.0 FAR

Although Brea is nearly built out within its corporate limits, development potential exists, particularly in the sphere of influence and hillside areas. The General Plan identifies potential new growth in the hillsides and responds with goals and policies to ensure proper land use planning. Figure 2 shows the land use policy map.



Legend

- City Boundary
- Sphere of Influence
- Specific Plan Boundary

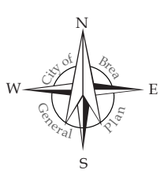
General Plan Land Use Designations

Residential Designations

- Hillside Residential
- Very Low Density Residential
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Mixed Use I
- Mixed Use II

Non-Residential Designations

- Regional Commercial
- General Commercial
- Neighborhood Commercial
- Recreational Commercial
- Office/Financial
- Light Industrial
- General Industrial
- Public Facilities
- Parks/Recreation/Open Space
- Natural Open Space
- Agriculture
- Cemetery



0 3,000 6,000 9,000 12,000 Feet

0 0.5 1 1.5 2 Miles

BREA GENERAL PLAN

October 2, 2002

Figure 2

Land Use Policy Map

The Circulation section addresses needed improvements to the existing transportation system, including roadways, transit, and pedestrian and bicycle paths, to meet increased demands over the next 20 years. The Circulation Plan indicates the City's intention to work with the Orange County Transportation Authority (OCTA) to amend the Master Plan of Arterial Highways (MPAH) to reclassify and delete selected MPAH facilities. Policies point toward cooperation with other jurisdictions to improve circulation on Imperial Highway and the 57 Freeway.

In the Infrastructure section, goals and policies provide for long-term maintenance and enhancement of water and sewer infrastructure, storm drains and channels, and telecommunications networks that connect modern towns to the world.

The Urban Design component identifies ways to unify the City through architectural treatments, landscaping, streetscapes, and signage. In addition to enhancing the character of Brea, these design features help promote pedestrian safety.

The Economic Development section addresses enhancing Brea's already solid economic base. Key concepts put forward include: 1) providing balanced employment and housing opportunities; 2) attracting and retaining businesses; and 3) promoting fiscal strength and stability.

Growth management policies ensure that the transportation system and other pubic facilities will be able to accommodate the needs of Breans over the next 20 years. This section looks at ways to provide public services commensurate with the demand from new development, providing a balance between jobs and housing in the Planning Area, and coordinating with other public agencies to address regional growth issues.

Housing

In 2001, the Brea City Council adopted an updated Housing Element in compliance with the State's deadline for the SCAG region. No amendments to the element have been made as part of this current General Plan update program.

Community Resources

This chapter focuses on natural resource conservation, open space, and historic resource issues. Conservation issues include providing parks to meet the needs of all community residents, preserving scenic hillsides and ridgelines that form a visual backdrop to the City, maintaining water quality, and working toward improving air quality. The importance of balancing new development with the needs of wildlife is also addressed. The Historic Resources section includes policies to recognize important buildings and places, and to preserve historic neighborhoods.

Community Services

Brea has an extensive community services system that offers residents many enrichment and basic needs programs. This chapter describes how the community services system will continue over the next 20 years. Key issues addressed include cultural arts, recreation programs, libraries, and human services, with a special emphasis on serving the youth and elderly. This chapter recognizes a strong public education system as a cornerstone of the community's foundation. The Education section

emphasizes cooperative City/School District initiatives to further enhance the District's service to the community.

Public Safety

The Public Safety chapter identifies and addresses physical and human-made conditions within or near the City that represent a potential danger to residents, structures, public facilities, and infrastructure. The chapter establishes goals, policies, and plans to minimize risk associated with crime, hazardous materials, geologic conditions, seismicity, flooding, and fires. Emergency preparedness planning, such as identifying actions needed to manage crisis situations, is also addressed. Community noise is considered a public safety issue, and this section examines ways to minimize the effects and extent of noise within Brea.

Implementation Program

The General Plan includes an Implementation Program that provides staff and City decision-makers with choices for translating each goal and policy to specific actions. The recommended actions will serve as a basis for making future programming decisions related to the assignment of staff and the expenditure of City funds. The Implementation Program identifies responsibilities, funding sources, and the time frame for completion.

Relationship to Local and Regional Plans

Brea Zoning Ordinance

The Zoning Ordinance (Title 20 of the Municipal Code) regulates development intensity by a variety of tools such as setting limits on building height, requiring setbacks, and specifying design standards. The Zoning Ordinance also outlines regulations for residential planned unit development, affordable housing, hillside management, historic preservation, and off-site hazardous waste facilities. The ordinance is a significant implementation tool of the General Plan. Following adoption of the General Plan, both the zoning map and Title 20 will be revised to reflect the General Plan.

Brea Redevelopment Plans

The Brea Redevelopment Agency, formed in 1972, made significant progress during the 1990s by restoring a vibrant downtown commercial district, providing numerous affordable housing opportunities, and other economic development successes. Brea's City Council acts as the Redevelopment Agency. There are currently two Redevelopment Project Areas in Brea: Redevelopment Project Area AB and Redevelopment Project Area C. Redevelopment Project Area AB involves a total area of 2,175 acres or 3.4 square miles of the downtown core area. Redevelopment Project Area C consists primarily of 4 distinct development areas, including residential and commercial office development.

Brea Specific Plans

A specific plan is a detailed plan for the development of a particular area. Falling under the broader umbrella of the General Plan, specific plans are intended to provide more finite specification of the types of uses to be permitted, development standards (setbacks, heights, landscape, architecture, etc.), and circulation and infrastructure improvements. Specific plans are often used to ensure that multiple property owners and developers adhere to a single common development plan, as well as to provide flexibility in development standards beyond those contained in the zoning ordinance as a means of achieving superior design. Brea has utilized specific plans as a tool to achieve the coordinated development of individual parcels. Specific plans in Brea include:

- Birch Hills
- Brea Towne Plaza
- Olinda Ranch
- Brea Industrial
- Carbon Canyon
- Tomlinson Park

Orange County General Plan

The Orange County General Plan applies to properties within unincorporated areas of the County. However, the Orange County Board of Supervisors has adopted a Memorandum of Understanding with cities to coordinate review of projects on properties within a city's sphere of influence. The Brea General Plan applies land use designations to properties within the City's sphere, and the City will use the designations in any review of a project proposed within County areas. Also, should any such properties be annexed to Brea, the land use designations shown on the Brea General Plan Land Use Policy Map will apply.

Orange County Growth Management Plan

The purpose of the Orange County Growth Management Plan is to ensure that the transportation system and other public facilities are adequate to meet the current and projected needs of Orange County. The Plan establishes the following five major policies:

- **Development Phasing:** Development will be phased according to Comprehensive Phasing Plans (CPPs) adopted by the County. Phasing is limited to roadway and public facility capacities.

- **Balanced Community Development:** Development will be balanced to encourage employment of local residents, and both employment and employee housing in the County, as well as in individual growth management areas (GMAs).

- **Traffic Level of Service:** Future development creates the need for improvements to major intersections significantly impacted by growth, and a developer fee program is included to pay for improving affected intersections on a pro-rata basis.

- **Traffic Improvement Programs:** All new development must provide necessary transportation facilities and intersection improvements as a condition of development approval.

- **Public Facility Plans:** Comprehensive public facility plans for fire, sheriff/police, and library services are required. New development participates on a pro-rata basis.

Implementation of the Orange County Growth Management Plan involves the establishment of: (1) growth management areas (GMAs) to implement Comprehensive Phasing Plans; (2) Facility Implementation Plans to address the financing of public facilities for each GMA; (3) County-wide implementation and evaluation of compliance with development phasing and improvements; and (4) traffic improvement/public facility development agreements. Brea is located in GMA #9.

County of Orange Measure M

Measure M, the revised Traffic Improvement and Growth Management Ordinance, authorized the imposition of a one-half percent sales tax to fund needed transportation improvements to ensure that countywide transportation systems and public facilities are adequate to meet the current and projected needs of County residents and businesses. To receive associated Measure M benefits, cities are required to include a Growth Management Element in their General Plans. The Brea General Plan Community Development chapter includes a Growth Management section.

County of Orange Master Plan of Arterial Highways (MPAH)

The County of Orange Master Plan of Arterial Highways (MPAH) forms part of the Orange County General Plan and designates the arterial system in the circulation element of the General Plan. Defined according to specific arterial functional classifications, the MPAH serves to define the intended future roadway system for the County. Cities within the County are expected to achieve consistency with the MPAH in individual General Plan circulation elements. To implement changes to the MPAH, approval from the Orange County Transportation Authority (OCTA) is required.

Local Transportation Authority (LTA) Ordinance No. 2.

LTA Ordinance No. 2 requires local jurisdictions to adopt a traffic circulation plan consistent with the MPAH, adopt and adequately fund a local transportation fee program, satisfy maintenance requirements, adopt a Growth Management Element, and adopt a seven-year capital improvement program that includes all transportation projects funded either partially or fully by Measure M funds.

Orange County Local Agency Formation Commission

The provisions of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 will be applied by the Orange County Local Agency Formation Commission (LAFCO) in its actions regarding future City annexations of land within the Brea sphere of influence and to any reorganization of other service districts for the Brea Planning Area. Under this act, LAFCO is responsible for: (1) encouraging orderly development; (2) ensuring that populations receive efficient and quality governmental services; and (3) guiding development away from open space and prime agricultural lands unless such action promotes planned, orderly, and efficient development.

Chino Hills State Park General Plan

Chino Hills State Park is managed by the California Department of Parks and Recreation. It encompasses approximately 11,770 acres within Orange, Riverside, and San Bernardino counties. The park occupies approximately 16% of Brea's total Planning Area. Chino Hills State Park was acquired primarily for the purpose of preserving natural landscape features, biological diversity, and the opportunities for solitude and recreation that open space provides for people in densely populated areas. The Chino Hills State Park General Plan was adopted in 1999. It provides for long-term management, development, and operation of park and future acquisitions.

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2.0 Environmental Setting

This section briefly describes the regional setting of Brea and its sphere of influence. More detailed discussion of the environmental setting in each category of potential impact is included in the environmental impact analysis in Section 3.0.

Brea is located in northeastern Orange County and lies at the base of the Puente and Chino Hills. The City encompasses approximately 10.8 square miles and is adjacent to Placentia and Yorba Linda to the south and southeast, Fullerton to the south, and La Habra to the west. Immediately north of the City is unincorporated Orange County land and the Los Angeles County boundary. The Orange Freeway (SR-57) bisects Brea from north to south. The three major east-west roadways are Imperial Highway (SR-90), Carbon Canyon Road (SR-142), and Lambert Road.

Brea's incorporated area, encompassing approximately 7,000 acres or 11 square miles, consists largely of residential, commercial, and industrial uses. Residential neighborhoods, containing unique characteristics due to their location and year built, make up a significant portion of Brea. Residential development is generally suburban in nature. Approximately 31% of Brea is devoted to residential development. Recent development within the City limits includes homes in the Olinda Ranch area, new townhomes north of downtown, and new industrial buildings. Housing development is proposed for Carbon Canyon and west of Brea Canyon Road.

Commercial and industrial development covers about 24% of the land area within Brea. Brea has a diverse business base, including a regional mall, several "big box" commercial centers along Imperial Highway east of SR-57, office parks, and modern industrial buildings. Schools and major public facilities account for 5% of the land area, and parks and other open space encompass about 11%. Within the Carbon Canyon Specific Plan area north and south of Carbon Canyon Road, large tracts of land are currently vacant, in a natural state, and in private ownership.

Brea's sphere of influence is dominated by vacant hillsides with scattered oil production uses, the Olinda Alpha Landfill, and Chino Hills State Park. Chino Hills State Park, a natural wilderness park, occupies over 16% of the total Planning Area. The County of Orange recently approved development of ±790 homes within Brea's unincorporated sphere of influence.

The existing Brea General Plan contains seven elements: Land Use; Circulation; Housing; Open Space and Conservation; Parks, Recreation, and Human Services; Safety; and Noise. Key policy objectives include the following:

- Promote the safe and efficient movement of people and goods.
- Support and endorse the State housing goal "of a decent home and satisfying environment for every Californian."
- Provide a flexible and balanced open space plan which responds to existing and future development and the City's needs and ability to serve these areas.
- Protect the public health and welfare of the community through identification and control of unhealthful and hazardous conditions in the City.
- Enhance quality of life through recreation for all of Brea's citizens.

- Develop and expand the City's recreation and park system based on current conditions and future projections.
- Provide a safe and healthful environment for the Brea community.
- Minimize the potential for loss of life and property in the event of a seismic event.
- Minimize noise impacts to the people who live and work in Brea.
- Control noise in Brea for the health and well being of current and future citizens.

Brea has a well established circulation network consisting of freeways, regional arterials, and local roadways. The Orange Freeway (SR-57) bisects Brea north to south, with access provided at Imperial Highway (SR-90) and Lambert Road. Imperial Highway, a six-lane arterial, travels east to west through the southern portion of the City. Lambert Road, which becomes Carbon Canyon Road (SR-142) east of Valencia Avenue (also SR-142), is a four-lane arterial. Other key north to south roads include Brea Boulevard, Kraemer Boulevard, and Valencia Avenue.

Beginning in the late 1980s, numerous transportation improvements were implemented to help alleviate traffic in the "Four Corners" area (intra-urban metropolitan area where Los Angeles, Orange, San Bernardino, and Riverside Counties converge). In spite of these improvements, traffic congestion patterns continue to exist, and recent forecasts continue to indicate increasing levels of travel demand in the area.[1] Freeway congestion during peak travel periods often results in the backing up of intersections providing access to the freeways. Within the City, Central Avenue, Lambert Road, Birch Street, and Imperial Highway serve as the primary east-west arterials. The primary north-south arterials include Puente Street, Brea Boulevard, State College Boulevard, Associated Road, Kraemer Boulevard, and Valencia Avenue. A number of existing roadway segments and intersections operate at level of service E or F (for a description of level of service methodology, refer to Section 3.2 Transportation/Traffic). Specifically, portions of Valencia Avenue, State College Boulevard, and Lambert Road experience significant delays. In addition, the intersections of SR-57 SB ramps at Lambert Road, Valencia Avenue at Lambert Road, Valencia Avenue at Birch Street, and Placentia Boulevard at Imperial Highway experience long queues, with several minute delays during peak hours.

Traffic and truck noise on arterial streets and freeways has been identified as a major noise problem in the City. With industrial uses, such as warehousing, distributions centers, and etc., occupying nearly 15% of the total land uses within the City, truck traffic serving the industrial uses contributes to higher noise levels in the City. Imperial Highway is a six-lane arterial road that allows truck access to all industrial areas within the City from SR-57. Truck traffic on Imperial Highway is very high during regular work hours. Sound walls have been constructed along Imperial Highway to protect adjoining residential neighborhoods from the traffic and truck noise. Although the landfill is located on unincorporated Orange County land (within Brea's sphere of influence), trucks can only access the landfill through the Brea via Valencia Avenue, the only road with access to the landfill.

The City's Maintenance Department is responsible for the distribution of domestic water and the maintenance of the overall water system facilities. Brea purchases all of its domestic water supply from two water wholesale agencies: Metropolitan Water District (MWD) and California Domestic Water Company (CDWC). The City owns one groundwater well owned by the City, but this water is used strictly for irrigation. Although the La Habra Groundwater Basin is located beneath the City, the water quality in the basin is poor and would require treatment and blending with higher quality

[1] Brea General Plan Update, Existing Conditions. Austin-Foust Associates, Inc. August 2001.

water to meet the State's public health standards. Based on water production records for 1989 to 1998, the City has purchased an average of 11,000 acre feet per year (af/yr), with approximately 63% of the supply coming from MWD and 37% from CDWC.[2]

Orange County owns and operates three active landfills: Olinda Alpha near Brea, Frank R. Bowerman near Irvine, and Prima Deshecha in San Juan Capistrano. The Olinda Alpha landfill is the closest facility to Brea and will likely be the solid waste facility most often receiving waste from the City. The City is under contract with the County of Orange to commit all of its waste to the County landfill system, not to a particular facility, until 2007. The City contracts for solid waste collection services. Brea Disposal provides collection of municipal solid waste, recyclables, and yard waste.[3]

Brea, as well as most of Southern California, has a typical Mediterranean climate with warm summers, mild winters, and moderate rainfall.[4] Cyclic land and sea breezes are the primary factors affecting the region's mild climate. The daytime winds are normally sea breezes from the west that flow at relatively low velocities. Temperatures are normally mild with rare exceptions. The temperatures in the City average 62 degrees Fahrenheit annually, with summer afternoons in the upper 80s/low 90s and winter mornings in the upper 30s.[5] Almost all precipitation occurs between November and March, although during these months it is sunny or partly sunny 75% of the time. The average annual rainfall is 16 inches.

Brea is located in the South Coast Air Basin, which includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties.[6] Due to the unique geography and meteorology of the Basin, ozone (O_3) levels are some of the highest in the country and are expected to continue to violate the federal and State ambient air quality standards in spite of vigorous control measures. High levels of carbon monoxide (CO) and particulate matter (PM10) also continue to violate the federal and State standards. The South Coast Air Quality Management Plan has been adopted for the Basin to attain federal and State standards by the year 2010.[7] Brea, like other cities in the Basin, is required to implement programs to reduce air pollutants originating within its borders.

Topography varies throughout the City. Most of the incorporated lands are relatively flat with the exception of the Carbon Canyon area. However, the Puente and Chino Hills within the northern and eastern ends of Brea and into its sphere of influence exhibit substantial relief, with significant ridgelines, valleys, and canyon slopes. The hills contain diverse habitats, including coastal sage scrub, chaparral, coast live oak/walnut woodland, riparian areas, and wetlands. These habitats contain sensitive plant species and several protected animals, including the California gnatcatcher, golden eagle, and ringtail cat.[8]

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[2] Draft Water Master Plan Update. Prepared for the City by Daniel Boyle Engineering. July 2002.
[3] Orange County Landfills. www.oc.ca.gov/iwmd/oclandfills.htm
[4] Brea California Resources Guide, City or Community of Brea, California Facts and Information. www.usacitiesonline.com/cacountybrea.htm.
[5] The Weather Channel. www.weather.com
[6] South Coast Air Quality Management District. www.aqmd.gov
[7] *1997 Air Quality Management Plan*. South Coast Air Quality Management District. November 1996.
[8] Chino Hills State Park General Plan. California State Parks. February 1999.

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3.0 Environmental Impacts and Mitigation Measures

This section of the EIR examines potentially significant effects associated with adoption and implementation of the Draft General Plan, including any subsequent amendments to Title 20 (Zoning) of the Municipal Code, and identifies mitigation measures to reduce impacts found to be potentially significant in the EIR analysis. Each environmental issue for which the Initial Study (see Appendix A) identified a potentially significant impact is discussed in the following manner:

Environmental Setting describes the existing environmental conditions in the City in baseline year 2000 to provide a foundation for comparing "before the project" and "after the project" environmental conditions.

Thresholds Used to Determine Level of Impact defines and lists specific criteria used to determine whether an impact is considered to be potentially significant. Appendix G of the CEQA Guidelines; local, State, federal or other standards applicable to that impact area; and officially established thresholds of significance are the major sources used in crafting criteria appropriate to the specifics of a project, since "... an ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting" (CEQA Guidelines Section 15064 [b]). Principally, ". . . a substantial, or potentially substantial, adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic and aesthetic significance" constitutes a significant impact (CEQA Guidelines Section 15382).

Environmental Impact presents evidence, based to the extent possible on scientific and factual data, about the cause and effect relationship between the project and the potential changes in the environment. The exact magnitude, duration, extent, frequency, range, or other parameters of a potential impact are ascertained to the extent possible to provide facts in support of finding the impact to be or not to be significant. In determining whether impacts may be significant, all the potential effects, including direct effects, reasonably foreseeable indirect effects, and considerable contributions to cumulative effects, are considered. If, after thorough investigation, a particular impact is too speculative for evaluation, that conclusion is noted (CEQA Guidelines Section 15145). Such may be the case for a number of issue areas given that the project is a 20-year plan, and inherent uncertainties arise in predicting land use activities so far in the future. The Plan was prepared through a process which considered possible environmental impacts, allowing mitigation to be addressed by Plan policies. When a specific feature of the General Plan, whether it be a policy, standard, or guideline, avoids or reduces an environmental impact, that feature is identified.

Mitigation Measures identify mitigation measures that can reduce or avoid the potentially significant impact in cases where the EIR analysis determines impacts to be potentially significant. Standard existing regulations, requirements, and procedures that are applied to all similar projects are taken into account in identifying what additional project-specific mitigation may be needed to reduce significant impacts. Mitigation, in addition to measures that the lead agency will implement,

can also include measures that are within the responsibility and jurisdiction of another public agency (CEQA Guidelines Section 15091[a][2]).

Level of Impact after Mitigation indicates what effects will remain after application of mitigation measures, and whether the remaining effects are considered significant. When these impacts, even with the inclusion of mitigation measures, cannot be mitigated to a level considered less than significant, they are identified as "unavoidable significant impacts." In order to approve a project with significant unavoidable impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a statement, the lead agency finds that it has reviewed the EIR, has balanced the benefits of the project against its significant effects, and has concluded that the benefits of the project outweigh the unavoidable adverse environmental effects, and thus, the adverse environmental effects may be considered "acceptable" (CEQA Guidelines Section 15093 [a]).

3.1 Land Use

This section of the EIR examines the primary or direct land use impacts associated with the long-term implementation of the General Plan. Through the Initial Study, issues regarding dividing an established community and conflicting with local land use plans were found to have no impact. Per State law, zoning ordinances, redevelopment plans, and specific plans must be consistent with the General Plan.

The issues of concern are the potential for the General Plan to conflict with existing development on South Brea Boulevard and in the surrounding residential neighborhoods, and to conflict with applicable habitat conservation plans and the natural community conservation plan. Secondary, or indirect land use impacts such as traffic noise, air quality, biological resources, and others, are discussed in other sections of this EIR.

Environmental Setting

Brea lies at the base of the Puente and Chino Hills, which provide a scenic contrast to the relatively flat lands on which much of the City has been developed. This contrast has influenced and shaped the types, intensities, and locations of land uses throughout the City. As of 2002, Brea's incorporated city limits encompass approximately 7,000 acres, or 11 square miles. As shown in Table 3.1-1, approximately 31% of Brea is devoted to residential development. Commercial and industrial development covers approximately 24% of the land in Brea. Another 5% is developed with schools and major public facilities like the Civic and Cultural Center. A significant portion of land within Brea, 11%, is devoted to parks and other open spaces~~, with the Chino Hills State Park representing the largest open space feature~~. Table 1 shows the distribution of land use within Brea.

Table 1
Land Use Distribution in the Planning Area

Land Use Distribution	**Percent**
Residential (single-family, multi-family, and mobile homes)	15%
Commercial and Office	5%
Industrial	7%
Parks and Open Space	28%
Public Facilities (schools, Civic and Cultural Center, drainage channels, fire stations, and other public facilities)	7%
Carbon Canyon Hillsides Areas and Vacant Lands	34%
Agriculture	2%
~~Vacant~~	~~2%~~
Other (streets)	2%
Total	100%

Source: City of Brea and Cotton/Bridges/Associates, March 2003.

Residential neighborhoods contain homes and representative architectural styles from almost every period dating to the early twentieth century, and make up a significant portion of Brea. The historic

core of the City surrounding City Hall Park maintains the traditional grid street patterns, while development from the 1960s through 1990s is generally suburban in nature. Recent development includes higher density small lot subdivisions, townhomes, and apartments near the City center, as well as mixed use development combined with commercial uses. More compact development is also located in the foothills where development was clustered to avoid environmentally constrained properties. New housing development is proposed in Carbon Canyon and west of Brea Canyon Road.

In particular, residential neighborhoods in southwest Brea contain a concentration of homes dating to the early twentieth century. City Hall Park is a unique and treasured community resource containing Brea's Old City Hall, the Brea Plunge, and the Old American Legion Hall. The South Walnut residential neighborhood surrounding City Hall Park contains many structures 80 to 100 years old. Many of these structures exhibit craftsmanship characteristics of their era and incorporate unique materials.

Early in the development of Brea, commercial uses were centered near the Birch Street/Brea Boulevard intersection, and this area continues to represent a major commercial center and community gathering place. This area includes the revitalized Downtown Brea and Brea Mall. Large commercial centers are also located along Imperial Highway east and west of the SR-57 freeway. Industrial businesses in west and central Brea provide jobs of varied skill levels.

Brea's sphere of influence, approximately 7,536 acres or 12 square miles, is dominated by vacant hillsides. Historically, oil production represented the predominant use in the hillside areas; the County's Olinda Alpha landfill also occupies many acres in the hillsides. The hillsides have been recognized as a valuable open space and habitat resources. As a result, many acres throughout the Puente and Chino Hills have been secured as permanent, protected open space, such as Chino Hills State Park.

Related Plans and Programs

Specific Plans

A specific plan can be prepared for any defined geographic area which might benefit from special land use regulations and development standards. Specific plans provide more finite specification of the types of uses permitted, development standards (setbacks, heights, landscape, architecture, etc.) and circulation and infrastructure improvements. Specific plans are often used to ensure that multiple property owners and developers adhere to a single common development plan, as well as to provide flexibility in development standards beyond those contained in the zoning as a means of achieving superior design.

Brea has utilized specific plan as a tool to achieve coordinated development of individual parcels. Specific plans currently in effect include:

- Birch Hills Specific Plan
- Brea Towne Plaza Specific Plan
- Olinda Ranch Specific Plan
- Brea Industrial Specific Plan
- Carbon Canyon Specific Plan
- Tomlinson Park Specific Plan

The Brea Towne Plaza Specific Plan, in conjunction with the General Plan and Redevelopment Plan, was envisioned to revitalize the Brea Towne Plaza through the use of incentives and voluntary participation. This Specific Plan, originally adopted in 1986 and significantly modified in 1993 to build redevelopment of the compact Downtown area, has proven successful in the construction of well-designed retail and commercial uses, entertainment uses, mixed-use development, and various single-family and multi-family residential projects.

Natural Community Conservation Planning Program[1]

The Natural Community Conservation Planning (NCCP) program was authorized by the California Natural Community Conservation Planning Act of 1991 and set forth in Section 2800 et seq. of the California Fish and Game Code. The purpose of the NCCP program is to have a broad-based approach to ecosystem conservation for the protection and perpetuation of biological diversity. The NCCP program aims to provide regional or areawide protection of plants, animals, and their habitats while continuing to accommodate compatible land uses. This broad-based approach differs from the objectives of the California and Federal Endangered Species Act, which focus on the preservation of individual species that have already significantly declined in numbers. The program seeks to anticipate and prevent controversies and gridlock caused by species' listings by concentrating on the long-term stability of wildlife and plant communities and including key interests in the process.

The focus of the initial effort was the coastal sage scrub habitat of Southern California, home to the California gnatcatcher and approximately 100 other potentially threatened or endangered species. The NCCP program establishes an areawide reserve area for protection of multiple species. The Coastal Sage Scrub NCCP area includes more than 6,000 square miles and encompasses portions of Orange, San Diego, Riverside, Los Angeles, and San Bernardino counties. Brea is located in the Orange County Northern Subregion.[2] In the Orange County Northern Subregion, a Chevron USA 4(d) permit concurrence letter was issued by the wildlife agencies that will allow Chevron to complete oil field abandonment operations. The permit also commits Chevron to setting aside and managing a 28-acre preserve area for California gnatcatchers and funding cowbird control efforts.

The Metropolitan Water District of Southern California (MWD) and Shell Western E&P Inc., adjacent property owners to Chino Hills State Park with planned future activities that will have impacts on habitat, have developed a Habitat Conservation Plan (HCP) with the Department and other agencies (including U.S. Fish and Wildlife Service, California Department of Fish and Game, the County of Orange, the cities of Yorba Linda, and Brea, and Hills for Everyone) in accordance with Section 10(a)(1)(B) of the Federal Endangered Species Act. The HCP is a plan to protect and restore coastal sage scrub habitat and the species that utilize it. The HCP was required as mitigation for development by MWD and Shell Western E&P of coastal sage scrub habitat used by the federally listed California gnatcatcher. The HCP covers a 2,600-acre study/management area in the western portion of Chino Hills State Park and results in the preservation of more than 1,200 acres, including the Sonome Canyon area. The MWD/Shell HCP is a major component of the NCCP because it provides crucial habitat protection and enhancement for some of the last remaining coastal sage scrub habitat in the region.[3]

[1] California Department of Fish & Game. "Natural Community Conservation Planning." www.dfg.ca.gov/nccp/index.html
[2] Ibid.
[3] California Department of Parks and Recreation. Chino Hills State Park General Plan. February, 1999.

Threshold Used to Determine Level of Impact

A significant impact will occur if implementation of the General Plan will create incompatible land uses on South Brea Boulevard or result in conflicts with any applicable habitat conservation plan or natural community conservation plan, adopted for the purpose of avoiding or mitigating an environmental effect.

Environmental Impact

Land Use Compatibility Concerns

The focus of the land use policies is to concentrate development in certain areas like Downtown Brea and Southeast Brea. The General Plan also limits development in the hillsides in order to preserve open space and protect Brea's scenic and historic resources. The General Plan represents the City's effort to balance land uses to meet the needs of present and future residents of Brea. The General Plan contains the following goals and policies in the Community Development chapter to guide land use development throughout the City:

Goal CD-1 Provide a balance of land uses to meet the present and future needs of all residents.

Policy CD-1.1 Create neighborhoods that effectively integrate single-family and multi-family housing with convenience and neighborhood shopping centers, park and recreation areas, and other uses appropriate for the neighborhoods.

Policy CD-1.2 Maintain a land use structure that balances the provision of jobs and housing with available infrastructure and public and human services.

Policy CD-1.3 Endeavor to create a mixture of employment opportunities for all economic levels of citizens.

Policy CD-1.4 Ensure that the City maintains a balance among residential, commercial, and industrial land uses.

Policy CD-1.5 Provide opportunities for development of housing that responds to diverse community needs in terms of density, size, location, design, and cost.

Policy CD-1.6 Accommodate a broad range of business uses that provide employment at all income levels and that make a positive contribution to the City's tax base.

Policy CD-1.7 Create and maintain linked open spaces and pedestrian access that serve the entire community.

Policy CD-1.8 Connect, where possible, all neighborhoods of the community and surrounding areas located with the City and Sphere of Influence with greenways and well-planned, well-located park areas. Maximize connections to hillside and open space areas.

Policy CD-1.9 Encourage new development that is organized around compact, walkable, mixed-use neighborhoods and districts to conserve open space resources, minimize infrastructure costs, and reduce reliance on the automobile.

Policy CD-1.10 Preserve open space wherever possible, especially in the hillside areas.

Policy CD-1.11 Maintain a mixture of business and retail uses within the community.

Policy CD-1.12 Preserve existing older but well-maintained neighborhoods.

Policy CD-1.13 Address "mansionization" in the community.

Policy CD-1.14 Update and enforce the Neighborhood Preservation Ordinance.

The General Plan does not propose any substantial alteration to existing land use patterns. However, it does modify the land use designation on South Brea Boulevard from High Density Residential and Retail Commercial to Mixed Use I.

South Brea Boulevard is currently developed with retail commercial uses, some high density residential development, and a small amount of low density residential development. Land use compatibility concerns were raised because development along South Brea Boulevard abuts low density residential development. Furthermore, neighborhoods in southwest Brea contain a concentration of homes dating from the early twentieth century. This district is called Historic Brea in the General Plan and is guided by specific development goals and policies within Brea's land use policy, including:

Goal CD-5 Preserve Brea's unique historic and cultural resources and neighborhoods.

Policy CD-5.1 Ensure new development is compatible with the style, theme, and design of established structures and neighborhoods.

Policy CD-5.2 Provide landscaping and amenities that complement historic resources and neighborhoods.

Policy CD-5.3 Promote preservation of historic single-family homes by ensuring that General Plan and zoning designations reflect the single-family nature of specific neighborhoods, and by providing City resources or incentives that foster rehabilitation.

Policy CD-5.5 Create an easily identifiable historic district in Brea that is closely linked with Downtown.

Policy CD-5.6 Establish design guidelines of standards for commercial development on South Brea Boulevard that respect and complement the historic character of surrounding neighborhoods.

However, the Mixed Use I designation will permit vertical integration of compatible residential and commercial uses along South Brea Boulevard whereby such uses share the same building or lot. Development will be permitted at a ratio of 20% residential and 80% commercial. Instead of having an apartment building located next to a retail commercial building, like a small market, the new designation will allow apartments to be constructed above the neighborhood commercial business. This new designation will provide for intense, mixed-use urban environments that offer opportunities for people to live, work, shop, and recreate without having to use their cars because all of these amenities will be accessible within a single neighborhood.

To minimize the potential conflict between the mixed-use designation and Historic Brea, action programs call for the City to establish streetscape/landscape design plans for South Brea Boulevard and Historic Brea that complement the existing historic environment and resources; ensure plans are consistent with the Public Realm Urban Design Palette in the Community Development Chapter; and update and amend the Brea Towne Plaza Specific Plan to include updated standards on design guidelines for commercial development for South Brea Boulevard that respect and complement the historic character of surrounding neighborhoods. An aesthetic unity will be created by establishing streetscape and landscape plans along South Brea Boulevard and in Historic Brea. The implementation plan also ensures that commercial development on South Brea Boulevard will be consistent with the character of Historic Brea. The Brea Towne Center Specific Plan will be amended to include definite design guidelines to address orientation, height, bulk, and the relationship of new development to the adjacent residential uses. Application of the implementation program will ensure that compatibility will be achieved between the residential uses in Historic Brea and mixed-use development on South Brea Boulevard. Therefore, impact will be less than significant and no further mitigation is required.

Natural Community Conservation Plan

Brea is located within the Orange County Northern Subregion of the Southern California Coastal Sage Scrub NCCP region. The Northern Subregion NCCP program is in the preliminary planning stages and has not been approved. Therefore, the General Plan will not conflict with this program.

In addition, Brea has resolved to protect wildlife habitat by preserving wildlife corridors and the vegetation communities that make up these habitat areas. While many thousand acres receive protection due to their location within Chino Hills State Park, the difficulty lies in maintaining linkages to valuable habitat on private property. Therefore, the General Plan fully supports efforts of conservation agencies and organizations to prevent any further urban encroachment. The Community Resources chapter of the General Plan Community Resources chapter includes the following goals and policies to specifically address the preservation and maintenance of habitat conservation areas:

Goal CR-9 **Preserve and maintain open space, natural habitat, and vegetation communities that support wildlife species and animals.**

Policy CR-9.1 Support regional and sub-regional efforts to acquire, develop, operate, and maintain an open space system extending from the Puente Hills to the Chino Hills.

Policy CR-9.3 Preserve and restore the habitat value of creek corridors though the preservation of native plants and the replacement of invasive, non-native plants with native plants.

Policy CR-9.4 Protect sensitive plant species resources from the impacts of development.

Policy CR-9.5 Manage areas of diverse wildlife habitat as a natural resource and prevent major destruction or disruption.

Policy CR-9.6 Use specific management programs using sound ecological principles and professionally accepted methods are necessary to protect and restore sensitive animal populations and their habitats.

Action programs related to the General Plan call for the City to assess development proposals for potential impacts to significant natural resources pursuant to the California Environmental Quality Act (CEQA) and associated state and federal regulations and to require appropriate mitigation for all significant impacts if impact avoidance is not possible. The City will also consult with Wildlife Corridor Conservation Authority (WCCA) and the California Department of Parks and Recreation to provide the proper planning, conservation, environmental protection, and maintenance of habitat and wildlife corridors. These goals, policies, and implementation measures are intended to ensure the preservation of natural habitat and vegetation communities that support sensitive wildlife species and animals. Therefore, the General Plan is compatible with the focus of the Natural Community Conservation Planning Program. Impact will be less than significant, and no mitigation is required.

Mitigation Measures

No significant land use impact will result from implementation of the General Plan. No mitigation is required beyond the measures specified in the implementation programs.

Level of Impact after Mitigation

Impact is less than significant.

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3.2 Transportation/Traffic

This section examines whether implementation of the General Plan will result in increased vehicle trips or traffic congestion. The General Plan Community Development Chapter and this section of the EIR contain information about the City's existing and future circulation system. The traffic study is contained in Appendix B of this EIR. Conclusions of the study are summarized below.

Environmental Setting

Circulation System

Brea's circulation network includes freeways, regional arterials, and a well-developed local road system. The Orange Freeway (SR-57) traverses north-south through the center of Brea. Freeway interchanges serving the City include Imperial Highway, Lambert Road, Tonner Canyon Road, and Brea Canyon Road. Within the City, Central Avenue, Lambert Road, Birch Street, and Imperial Highway (SR-90) serve as the primary east-west arterials. Carbon Canyon Road (SR-142) moves traffic east-west from Valencia Avenue to the San Bernardino County border. Primary north-south arterials include Puente Street, Brea Boulevard, State College Boulevard, Associated Road, Kraemer Boulevard, and Valencia Avenue.

The City's non-motorized transportation facilities include bicycle routes and sidewalks. The City is part of the Orange County Transportation Authority (OCTA) Commuter Bikeways Strategic Plan (August 2001) and contains approximately 9 miles of bike lanes and bike routes. Pedestrian mobility is provided by the City's extensive sidewalk system. Brea requires the installation of sidewalks in all new developments.

The Orange County Transportation Authority (OCTA) provides bus transit service to Brea residents and workers. Six transit routes link the City with the communities of La Habra, Fullerton, Orange, Santa Ana, Costa Mesa, Tustin, Anaheim, Garden Grove, Irvine, and Newport Beach.

Existing Traffic Conditions

Signalized intersections were analyzed using the Intersection Capacity Utilization (ICU) method. This methodology produces an intersection volume-to-capacity (V/C) ratio that is then related to a "Level of Service" (LOS) estimate. LOS describes the ability of an intersection or road segment to meet its intended design capacity. Each LOS rating describes how people perceive the amount of congestion or difficulty in getting where they want to go. LOS is ranked from A, representing no limitation on movement (best), to F, representing very high levels of congestion (worst). A detailed description of the LOS concept and analysis methodologies is provided in Appendix B.

The traffic analysis for the General Plan evaluated existing and future conditions on intersections within the City. Table 2 summarizes baseline (year 2001) conditions for identified intersections.

Table 2
Summary of A.M./P.M. Peak Hour Intersection Performance
Existing (Year 2001) Conditions

	------- EXISTING COUNT ------			
INTERSECTION	AM	LOS	PM	LOS
1. Puente & Central Ave	.67	B	.64	B
2. Berry & Central Ave	.57	A	.66	B
3. Brea Blvd & Central/State College	***.91***	***E***	***.98***	***E***
4. Puente & Lambert	.51	A	.52	A
5. Berry & Lambert	.55	A	.58	A
6. Brea Blvd & Lambert	.65	B	.67	B
7. State College & Lambert	.72	C	.82	D
8. SR-57 SB Ramps & Lambert	.68	B	.63	B
9. SR-57 NB Ramps & Lambert	.66	B	.69	B
10. Pointe Dr & Lambert	.43	A	.60	A
11. Associated & Lambert	.59	A	.49	A
12. Kraemer Blvd & Lambert	.90	D	.62	B
13. Valencia & Lambert	.47	A	.28	A
14. Brea Blvd & Birch	.43	A	.84	D
15. Randolph Ave & Birch	.37	A	.54	A
16. State College Blvd & Birch	.62	B	.77	C
17. Associated (S) & Birch	.69	B	.80	C
18. Associated (N) & Birch	.51	A	.53	A
19. Kraemer Blvd & Birch	.64	B	.79	C
20. Valencia & Birch/Rose	.66	B	.64	B
21. Puente & Imperial Hwy	.61	B	.72	C
22. Berry & Imperial Hwy	.64	B	.61	B
23. Brea Blvd & Imperial Hwy	.83	D	.76	C
24. Randolph Ave & Imperial Hwy	.48	A	.76	C
25. State College & Imperial Hwy	.63	B	.86	D
26. SR-57 SB Ramps & Imperial Hwy	.70	B	.75	C
27. SR-57 NB Ramps & Imperial Hwy	.71	C	.68	B
28. Associated & Imperial Hwy	.63	B	.80	C
29. Placentia & Imperial Hwy	.66	B	.60	A
30. Kraemer & Imperial Hwy	.65	B	.78	C
31. Valencia & Imperial Hwy	.60	A	.59	A
32. Brea Blvd & Tonner Canyon	.76	C	.80	C
33. Brea Blvd & SR-57 SB On-Ramp	.77	C	.80	C
34. SR-57 NB Off-Ramp & Tonner Canyon	.06	A	.10	A
35. SR-57 SB Off-Ramp & Brea Canyon	.61	A	.43	A
36. SR-57 NB On-Ramp & Brea Canyon	.45	A	.32	A

Note: Bold and italic font denotes intersections which exceed performance standards (LOS "D" for City of Brea intersections, and LOS "E" for CMP intersections). CMP intersections are: State College at Imperial Highway, Valencia Blvd at Imperial Highway, and the SR-57 interchange at Imperial Highway.

Abbreviations: ICU = Intersection Capacity Utilization; LOS = Level of Service
Refer to traffic study in Appendix B for discussion of ICU and LOS

Table 2 shows that during the morning and evening peak travel periods, the following intersections in Brea experienced LOS E or LOS F conditions:

- Brea Blvd & Central/College – LOS E in A.M. AND LOS E in P.M.

Related Regional Plans

Master Plan of Arterial Highways

The Orange County Transportation Authority is the county's primary transportation agency and is responsible for planning and operating regional transit facilities and services and coordinating and financing the County's transportation network. The OCTA has adopted the *County of Orange Master Plan of Arterial Highways* (MPAH) which establishes designations for the countywide roadway network and defines the intended future roadway system for the County. All cities within Orange County must reflect the MPAH in their General Plans to receive Measure M transportation funds.

The City of Brea is working with the OCTA to delete the proposed Tonner Canyon Road/Valencia Avenue connection, downgrade South Brea Boulevard from a planned 6-lane Major Arterial to a 4-lane Primary Arterial, downgrade Whittier Boulevard west of Palm and Puente Street north of Central Avenue from a 4-lane undivided secondary street to a 2-lane collector facility, and establish a Modified Secondary designation for Brea Canyon Road. These activities will require an amendment to the MPAH. The General Plan Circulation Element is based on the City's intention to delete and reclassify these facilities in the MPAH. The traffic study was performed using these assumptions.

Congestion Management Plan

OCTA is also responsible for administering the State-mandated Congestion Management Plan, or CMP. The goals of the CMP are to reduce traffic congestion and to provide a mechanism for coordinating land use development and transportation improvement decisions. Imperial Highway (SR-90) is the only roadway that is a portion of the CMP network within Brea. The following intersections are also a part of the CMP network and have adjacently located monitoring stations: State College Boulevard at Imperial Highway, Valencia Avenue at Imperial Highway, and the SR-57 interchange at Imperial Highway.

Thresholds Used to Determine Level of Impact

The Orange County CMP recognizes LOS E as the minimum acceptable standard at signalized intersections. This standard was adopted as part of the CMP in 1991. As part of its nexus program for collection of traffic mitigation fees, the City has adopted a LOS D standard for non-CMP intersections and roadways. Thus, implementation of the General Plan will have a significant impact on the roadway network if the project:

- Causes a CMP intersection already operating at LOS E or better to operate at LOS F;
- Causes an intersection in a residential neighborhood to operate at LOS D or lower;

- Causes an increase in volume/capacity (V/C) ratio of 0.02 or more;
- Causes or worsens an LOS F at a CMP monitoring station or mainline freeway monitoring location; or
- Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system.

Environmental Impact

To evaluate potential effects of development pursuant to Brea's General Plan on the local circulation system, impacts to key intersections and primary roadway segments were analyzed. The LOS standard was used to assess impacts to intersections, and average daily trips (ADTs) were used to evaluate impacts to roadway segments.

Circulation System

As discussed in the Project Description of this EIR, Brea is largely built out. Thus, growth anticipated to occur pursuant to the General Plan will result largely of the recycling of land uses within Brea in addition to growth in the undeveloped areas of Brea's sphere of influence. For the purposes of the traffic analysis conducted to study traffic patterns in the build-out year of the General Plan, future traffic includes new trips from higher intensity land uses within Brea and surrounding jurisdictions. Appendix B of this EIR contains a complete description of the travel forecast methodology.

The following goals and policies in the General Plan aim to minimize impacts associated with future additional trips:

Goal CD-9 Maintain an effective regional transportation network.

Policy CD-9.2 Support efforts to establish rail travel connections with a regional network.

Policy CD-9.3 Cooperate with surrounding jurisdictions to ensure the efficient operation of the arterial network system.

Policy CD-9.4 Work with Caltrans, the Orange County Transportation Authority, and surrounding jurisdictions to provide adequate capacity on regional routes for through traffic and to minimize cut-through traffic on the local street system.

Policy CD-9.6 Recognize that Carbon Canyon Road will continue to serve high volumes of regional traffic despite its designation as a Modified Commuter. Thus, examine design solution alternatives that can improve the safety and efficiency of Carbon Canyon Road.

Goal CD-10 Provide a safe and efficient circulation system that meets the needs of the community.

Policy CD-10.1 Maintain a circulation system that is based upon and is in balance with the Land Use Element of the General Plan.

Policy CD-10.2 Establish Level of Service goals for designated City streets, and ensure that new development maintains these service levels.

Policy CD-10.4 Protect residential streets from arterial street traffic.

Policy CD-10.5 Use traffic calming measures in residential neighborhoods where warranted and appropriate to enhance safety for pedestrians.

Goal CD-11 Promote and support an efficient public transportation system.

Policy CD-11.1 Support transit providers such as the Orange County Transportation Authority in granting additional service routes within the City as needed.

Policy CD-11.5 Require new developments to incorporate transit-oriented design features, as appropriate.

Policy CD-11.6 Balance accommodations for automobiles, transit, bicycles, and pedestrians in the design of new streets and streetscape improvements.

Goal CD-12 Provide for an extensive, integrated, and safe bicycle, hiking, and pedestrian network throughout the community, and make Brea a pedestrian-friendly community.

Policy CD-12.1 Develop and maintain a comprehensive and integrated system of bikeways that promote bicycling riding for commuting and recreation.

Intersections

The A.M. and P.M. peak hour analysis of anticipated future conditions at the study intersections was performed using the same methodologies that were used to evaluate existing conditions. Results of the analysis of forecast future intersection peak-hour conditions are summarized in Table 3. Traffic associated with build-out of the General Plan will cause the following 13 intersections to exceed their respective LOS standard (LOS D for City of Brea intersections and LOS E for CMP intersections):

- Brea Blvd & Central/College – LOS F in P.M.
- State College & Lambert – LOS F in P.M.
- SR-57 NB Ramps & Lambert – LOS E in A.M.
- Kraemer Blvd & Lambert – LOS F in A.M. and LOS F in P.M.
- Brea Blvd & Birch – LOS E in P.M.
- State College Blvd & Birch – LOS E in P.M.
- Kraemer Blvd & Birch – LOS F in A.M. and LOS in P.M.
- Puente & Imperial Highway – LOS E in P.M.
- Berry & Imperial Highway – LOS E in P.M.
- Brea Blvd & Imperial Highway – LOS F in A.M. and LOS E in P.M.
- Randolph Ave & Imperial Highway – LOS E in P.M.

Table 3
Summary of A.M./P.M. Peak Hour Intersection Performance
Future Conditions

	LONG RANGE CIRCULATION		PROPOSED NETWORK	
INTERSECTION	AM	LOS	PM	LOS
1. Puente & Central Ave	.80	C	.69	B
2. Berry & Central Ave	.69	B	.74	C
3. Brea Blvd & Central/State College	.87	D	***1.05***	***F***
4. Puente & Lambert	.68	B	.72	C
5. Berry & Lambert	.65	B	.68	B
6. Brea Blvd & Lambert	.89	D	.90	D
7. State College & Lambert	.85	D	***1.05***	***F***
8. SR-57 SB Ramps & Lambert	.87	D	.80	C
9. SR-57 NB Ramps & Lambert	***.91***	***E***	.88	D
10. Pointe Dr & Lambert	.62	B	.83	D
11. Associated & Lambert	.86	D	.82	D
12. Kraemer Blvd & Lambert	***1.17***	***F***	***1.20***	***F***
13. Valencia & Lambert	.73	C	.56	A
14. Brea Blvd & Birch	.60	A	***.92***	***E***
15. Randolph Ave & Birch	.48	A	.70	B
16. State College Blvd & Birch	.71	C	***.91***	***E***
17. Associated (S) & Birch	.85	D	.86	D
18. Associated (N) & Birch	.63	B	.73	C
19. Kraemer Blvd & Birch	***1.10***	***F***	***1.07***	***F***
20. Valencia & Birch/Rose	.70	B	.82	D
21. Puente & Imperial Hwy	.83	D	***.97***	***E***
22. Berry & Imperial Hwy	.88	D	***.94***	***E***
23. Brea Blvd & Imperial Hwy	***1.09***	***F***	***.96***	***E***
24. Randolph Ave & Imperial Hwy	.67	B	***.95***	***E***
25. State College & Imperial Hwy	***1.01***	***F***	***1.17***	***F***
26. SR-57 SB Ramps & Imperial Hwy	.97	E	.98	E
27. SR-57 NB Ramps & Imperial Hwy	.87	D	.93	E
28. Associated & Imperial Hwy	.70	B	.86	D
29. Placentia & Imperial Hwy	.78	C	.73	C
30. Kraemer & Imperial Hwy	.85	D	***1.03***	***F***
31. Valencia & Imperial Hwy	.96	E	.89	D
32. Brea Blvd & Tonner Canyon	.79	C	.86	D
33. Brea Blvd & SR-57 SB On-Ramp	.77	C	.85	D
34. SR-57 NB Off-Ramp & Tonner Canyon	.11	A	.16	A
35. SR-57 SB Off-Ramp & Brea Canyon	.62	B	.43	A
36. SR-57 NB On-Ramp & Brea Canyon	.46	A	.41	A

Note: Bold and italic font denotes intersections which exceed performance standards (LOS "D" for City of Brea intersections, and LOS "E" for CMP intersections). CMP intersections are: State College at Imperial Highway, Valencia Blvd at Imperial Highway, and the SR-57 interchange at Imperial Highway.

- State College & Imperial Highway – LOS F in A.M. and LOS F in P.M.
- Kraemer and Imperial Highway – LOS F in P.M.

Roadway Segments

The traffic analysis forecasted average daily trips (ADTs) volumes for numerous roadway segments in Brea. One roadway in particular, Carbon Canyon Road between Valencia Avenue and the eastern edge of the City, currently carries traffic volumes (19,000 ADT) that are close to the capacity (20,000 ADT) of this two-lane facility. Carbon Canyon Road serves as a commuter route from San Bernardino County into Orange and Los Angeles counties. Because the roadway winds through a steep canyon, limited opportunities are available to increase the road beyond two lanes. Thus, the General Plan designates Carbon Canyon Road as a two-lane collector/commuter roadway.

Future volumes associated with ambient growth and potential future development in the Carbon Canyon Specific Plan area are anticipated to result in an average daily volume of over 35,000 trips on this portion of Carbon Canyon Road. This additional traffic will exceed existing and planned roadway capacity. Such volumes cannot be carried without substantial improvements to Carbon Canyon Road which cannot be easily accomplished. Opportunities may exist for focused improvements to enhance safety, such as passing lanes at key locations. However, such improvements would not expand capacity to the point required to accommodate projected future traffic volumes. Hence, Carbon Canyon Road will experience an unmitigated deficiency, resulting in a significant impact.

Improvements

The General Plan Circulation section within the Community Development Chapter describes several long-term improvements to the City's circulation system that will be implemented to address anticipated, immediate, and long-term needs. These improvements include road widenings, intersection improvements, streetscape improvements, and traffic safety projects.

Nexus Program

The City of Brea created a Nexus Program in 1995 to fund long-range transportation improvements in the City. The Nexus Program is intended to facilitate the widening of roadways to their full width as designated in the General Plan Circulation Element and to make intersection improvements in response to peak-hour capacity needs. The City collects fees from new development to fund improvements identified in the Nexus Program. An update to the Nexus Program is currently underway, with completion anticipated by the end of 2003. Through the update process, the City is incorporating planned improvements into the Program to ensure that that all intersections addressed in the Nexus Program meet the City's adopted performance criteria, including those potentially impacted by future development pursuant to the General Plan.

In devising transportation improvements to address intersection deficiencies, various options are typically available for a given location. The following list summarizes the types of improvements that are evaluated and selected for implementation:

- intersection restriping (change in lane deployment)
- additional left-turn lane
- additional through lane
- dedicated right-turn lane
- signal coordination
- signal operation change
- interchange ramp modification
- roadway enhancements (e.g. removal of parking, addition of raised median, acceleration and deceleration lanes, etc.)

To fund the transportation improvements in the Nexus Program, the City adopted Ordinance 966, which establishes traffic impact fees for all new development in Brea and annexed portions of its sphere of influence. These fees assist to fund transportation improvements, including completing the MPAH and enhancing additional intersections at selected locations. Utilizing traffic impact fees collected from all new developments within the City of Brea will allow the transportation improvements set forth in the updated Nexus Program to receive funding. The implementation of these improvements will ensure that traffic flow will meet Brea's LOS standards at neighborhood intersections and CMP LOS standards at CMP intersections.

The impacted intersections identified above are included in the Nexus Program with appropriate associated improvements to each intersection. These improvements will be funded through collected traffic impact fees. Per City policy, these intersections will not be permitted to exceed Brea's LOS standards. As a result of Nexus Program enhancements, it can be concluded that implementation of the General Plan Land Use Element and Circulation Element will result in less than significant traffic impacts at all City-monitored and CMP intersections.

Related Regional Plans

CMP Guidelines state that projects that will add 150 or more trips, in either direction, during the A.M. or P.M. weekday peak hours, at CMP mainline freeway-monitoring locations, requires additional analysis. Based on analysis of projected travel activity in the City due to General Plan build-out, the total number of freeway trips that could be generated during the morning or afternoon peak period is 33,000 trips. These trips will be generated over the next 20 years. As such, no single project can be identified at this time as meeting the threshold for analysis.

Mitigation Measures

Mitigation, in terms of comprehensive roadway improvements, is infeasible for Carbon Canyon Road east of Valencia Avenue due to extreme topographic conditions that impose right-of-way constraints. Steep slopes along the north and south edges of the road inhibit widening of the road beyond its existing two-lane width. Additionally, the sensitive character of the vegetation and habitats that surround Carbon Canyon Road further constrain any potential comprehensive road widening plans. Widening would entail significant disruption of habitats and slope contrary to City policies, and such mitigation would result in additional significant effects to landform and habitat. The City may pursue focused improvement to enhance safety, such as passing lanes at key locations. However, such improvements would not provide the capacity needed to accommodate

future traffic volumes. Hence, no mitigation is available to reduce impact to a less than significant level.

Level of Impact after Mitigation

Impact on Carbon Canyon Road east of Valencia Avenue will be significant and unavoidable.

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3.3 Air Quality

This section examines the potential for General Plan implementation to violate any air quality standard, result in a cumulatively considerable net increase of any criteria pollutant, or expose sensitive receptors to substantial pollutant concentrations. Through the Initial Study process, issues regarding potential conflicts with implementation of the applicable air quality plan and creating objectionable odors were found to have a less than significant impact. Air quality worksheets are included in Appendix C of this EIR.

Environmental Setting

South Coast Air Basin

Brea lies within the South Coast Air Basin (Basin). The Basin is a 6,600-square-mile area bounded by the Pacific Ocean on the west and the San Gabriel, San Bernardino, and San Jacinto mountains on the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties.

The topography and climate of Southern California combine to create an area of high air pollution potential in the Basin. During the summer months, a warm air mass frequently descends over the cool, moist marine layer produced by the interaction between the ocean's surface and the lowest layer of the atmosphere. The warm upper layer forms a cup over the cool marine layer, which prevents pollution from dispersing upward. This inversion allows pollutants to accumulate within the lower layer. Light winds during the summer further limit ventilation from occurring.

Due to the low average wind speeds in the summer and a persistent daytime temperature inversion, emissions of hydrocarbons and oxides of nitrogen have an opportunity to combine with sunlight in a complex series of reactions. These reactions produce a photochemical oxidant commonly known as "smog." Since the Los Angeles region experiences more days of sunlight than any other major urban area in the United States, except Phoenix, the smog potential in the region is higher than in most other major metropolitan areas in the country.

Climate and Meteorology

The climate in and around Brea, as well as most of Southern California, is controlled largely by the strength and position of the subtropical high-pressure cell over the Pacific Ocean. This high-pressure cell produces a typical Mediterranean climate with warm summers, mild winters, and moderate rainfall. The temperatures in Brea are normally mild with rare exceptions, averaging 68 degrees Fahrenheit in the winter and 88 degrees Fahrenheit in the summer. This pattern is infrequently interrupted by periods of extremely hot weather brought in by Santa Ana winds. Almost all precipitation occurs between November and April, although during these months, it is sunny or partly sunny a majority of the time. Cyclic land and sea breezes are the primary factors affecting the region's mild climate. The daytime winds are normally sea breezes, predominantly from the west, that flow at relatively low velocities.

Air Pollution Control Effects

Both the federal and State governments have set health-based ambient air quality standards for the following 6 pollutants:

- Sulfur dioxide (SO_2)
- Lead (Pb)
- Carbon monoxide (CO)
- Fine particulate matter (PM10)
- Nitrogen dioxide (NO_2)
- Ozone (O_3)

The standards are designed to protect the most sensitive persons from illness or discomfort with a margin of safety. The California standards are more stringent than federal standards and in the case of PM10 and sulfur dioxide, far more stringent. Table 4 outlines current federal and State ambient air quality standards.

Despite the existence of many strict controls, the South Coast Air Basin still fails to meet federal air quality standards for 2 of the 6 criteria pollutants including ozone, ~~nitrogen dioxide, carbon monoxide,~~ and PM10. Because lead-based gasoline has been phased out of California, airborne lead pollution is no longer a problem in the Basin, nor is sulfur dioxide pollution.

Nearly all pollution control programs developed to date have relied on the development and application of cleaner technology and add-on emissions control devices to clean up vehicular and industrial sources, such as catalytic converters for automobiles. Only recently have efforts been targeted at high-emitting vehicles and industries (e.g. the Vehicle Inspection and Maintenance Program and mandatory maintenance procedures on industrial sources) and at curbing overall vehicle activity (e.g. High Occupancy Vehicle [HOV] lanes).

Past air quality programs have been effective in improving the Basin's air quality. Although the magnitude of the problem depends heavily on the weather conditions in a given year, and improvements can only be compared for the same air monitoring station, ozone levels have declined by almost half over the past 30 years. However, they remain at or near the top of all pollution concentrations of urban areas in the United States.

Air Quality Monitoring

Brea is located within the North Orange County monitoring station. The monitoring station for this Source Receptor Area is located in Brea. Table 5 shows monitored air quality for carbon monoxide (CO), ozone (O_3), and nitrogen dioxide (NO_2) at the North Orange County station. The data indicates that State standards are rarely exceeded for CO or NO_2, yet frequently exceeded for O_3. In addition, Table 6 shows the maximum concentrations of PM10 and the number of days samples exceeded State standards.

Table 4
Air Pollution Sources, Effects, and Standards

Air Pollutant	State Standard	Federal Primary Standard	Sources	Primary Effects
Ozone (O_3)	0.09 ppm, 1-hour average	0.12 ppm, 1-hour average 0.08 ppm, 8-hour average	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	Plant leaf injury; Irritation of eyes Aggravation of respiratory and cardiovascular diseases Impairment of cardiopulmonary function
Carbon Monoxide (CO)	9.0 ppm, 8-hour average 20 ppm, 1-hour average	9.0 ppm, 8-hour average 35 ppm, 1-hour average	Incomplete combustion of fuels and other carbon-containing substances such as motor vehicle exhaust Natural events, such as decomposition of organic matter	Plant injury; Reduced visibility Deterioration of metals, textiles, leather, finishes, coatings, and so on Irritation of eyes; Reduced lung function Aggravation of respiratory diseases (asthma, emphysema)
Nitrogen Dioxide (NO_2)	0.25 ppm, 1-hour average	0.053 ppm, annual average	Motor vehicle exhaust High-temperature stationary combustion Atmospheric reactions	Aggravation of respiratory illness Reduced visibility Reduced plant growth Formation of acid rain
Sulfur Dioxide (SO_2)	0.25 ppm, 1-hour average 0.04 ppm, 24-hour average	0.14 ppm, 24-hour average	Combustion of sulfur-containing fossil fuels Smelting of sulfur-bearing metal ores Industrial processes	Plant injury; Reduced visibility Deterioration of metals, textiles, leather, finishes, coatings, and so on Irritation of eyes; Reduced lung function Aggravation of respiratory diseases (asthma, emphysema)
Fine Particulate Matter (PM10)	50 Fg/m^3, 24-hour average	150 Fg/m^3, 24-hour average	Stationary combustion of solid fuels Construction activities Industrial processes Atmospheric chemical reactions	Soiling; Reduced visibility Aggravation of the effects of gaseous pollutants Increased cough and chest discomfort Reduced lung function Aggravation of respiratory and cardio-respiratory diseases
Lead	1.5 Fg/m^3, 30-day average	1.5 Fg/m^3, calendar quarter	Contaminated soil	Impairment of blood function and nerve construction Behavioral and hearing problems in children
Visibility Reducing Particles	10 miles, 8-hour average with humidity < 70%	None		

Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, Chapter 3, Tables 3-1 and 3-2, November 2001 (Version 3) update.

Table 5
Number of Days State Ambient Air Quality Standards Exceeded
North Orange County Station

Year	Carbon Monoxide[1]		Ozone[2]		Nitrogen Dioxide[3]	
	Maximum 8-hour concentration (ppm)	*Days standard exceeded	Maximum 1-hour concentration (ppm)	*Days standard exceeded	Maximum 1-hour concentration (ppm)	*Days standard exceeded
1992	9.1	1	0.21	52	0.17	0
1993	6.0	0	0.19	47	0.18	0
1994	8.8	0	0.25	42	0.23	0
1995	6.6	0	0.16	33	0.20	0
1996	6.9	0	0.15	20	0.16	0
1997	6.0	0	0.13	9	0.15	0
1998	6.1	0	0.18	16	0.13	0
1999	5.3	0	0.12	6	0.16	0
2000	6.1	0	0.140	8	0.12	0
2001	4.7	0	0.114	4	0.13	0

* Number of days State standard was exceeded in calendar year.
ppm=parts per million parts of air, by volume
[1] State standard for carbon monoxide: 20 ppm 1-Hour; 9.0 ppm 8-Hour
[2] State standard for ozone: 0.09 ppm 1-Hour
[3] State standard for nitrogen dioxide: 0.25 ppm 1-Hour
Source: South Coast Air Quality Management District. *Air Quality Data 1990-1999*

Table 6
PM10 Measurements
North Orange County Station

Fine Particulate Matter (PM10)		
Year	**Maximum Concentration (Fg/m^3)**	**Days (% of) Samples Exceeding California standard***
1992	137	22 (36.1)
1993	data unavailable	
1994	122	20 (33.3)
1995	data unavailable	
1996	138	11 (18.3)
1997	data unavailable	
1998	80	10 (16.9)
1999	88	19 (33.0)
2000	data unavailable	
2001	data unavailable	

Fg/m3 = micrograms per cubic meter of air
*State standard for PM10 >50 Fg/m^3, 24-hour. Collected every 6 days.
Source: South Coast Air Quality Management District. *Air Quality Data 1990-1999*

Sensitive Receptors

The South Coast Air Quality Management District (SCAQMD) identifies sensitive receptors as populations that are more susceptible to the effects of air pollution than the general population. Sensitive receptors located in or near the vicinity of known air emissions sources, including freeways and intersections, are of particular concern. Sensitive receptors are located throughout the project area, and include the following:

- health care facilities
- rehabilitation centers
- convalescent centers
- residences
- schools
- playgrounds
- child care centers
- athletic facilities

Land use compatibility issues relative to siting of pollution-emitting uses or siting of sensitive receptors must be considered.

Carbon Monoxide Hot Spots

Carbon monoxide (CO) hot spots, or areas where carbon monoxide is concentrated, typically occur near congested intersections, parking garages, and other spaces where a substantial number of vehicles remain idle. Petroleum-powered vehicles emit carbon monoxide, an unhealthy gas (see Table 4), which disperses based on wind speed, temperature, traffic speeds, local topography, and other variables. As vehicles idle in traffic congestion or in enclosed spaces, CO can accumulate to create CO hot spots that can impact sensitive receptors.

Toxic Air Pollutants

Toxic air pollutants, such as asbestos, can be emitted during the demolition of buildings that contain toxic contaminants, and during the operation of certain industrial processes that utilize toxic substances. Federal and State governments have implemented a number of programs to control toxic air emissions. For example, the federal Clean Air Act provides a program for the control of hazardous air pollutants. In addition, the California legislature enacted programs including the Tanner Toxics Act (AB 1807), the Air Toxics Hot Spot Assessment Program (AB 2588), the Toxics Emissions Near Schools Program (AB 3205), and the Disposal Site Air Monitoring Program (AB 3374).

The SCAQMD has developed and implements rules to control emissions of toxic air pollutants from specific sources. These include Rule 1401 (New Source Review of Toxic Air Contaminants) which requires certain businesses to obtain a permit to emit toxic air pollutants, and Rule 1403 (Asbestos Emissions from Renovation/Demolition Activities) which regulates asbestos emissions during construction activities.

Related Plans and Programs

Air Quality Management Plan

Both California and the federal government require non-attainment areas, such as the South Coast Air Basin, to prepare an Air Quality Management Plan (AQMP) to reduce air pollution to healthful levels. The California Clean Air Act of 1988 and amendments to the federal Clean Air Act in 1990 required stricter air pollution control efforts than ever before. For example, the State of California must submit plans to the federal government showing how non-attainment areas in California will meet federal air quality standards by specific deadlines.

The 1994 and 1997 South Coast Air Basin AQMPs incorporate a number of measures to reduce air pollution in the Basin in order to meet federal and State requirements. These measures include strategies to meet federal and State standards for CO, PM10, NO_2, and ozone; control of toxic air contaminants and acutely hazardous emissions; and control of global warming and ozone depleting gases. These measures are updated periodically.

Thresholds Used to Determine Level of Impact

Implementation of the General Plan will result in a significant impact if it will:

- Violate any air quality standard or contributes substantially to an existing air quality violation
- Result in a cumulatively considerable net increase in any criteria pollutant
- Expose sensitive receptors to substantial pollutant concentrations

The SCAQMD has established air pollutant emission thresholds to assist lead agencies in determining whether or not the construction or operation of a project would result in significant impacts. If the lead agency finds that the project has the potential to exceed these thresholds, the project is considered to have a significant impact on air quality. These thresholds are summarized in Table 7.

Table 7
SCAQMD Thresholds for Significant Contribution to Regional Air Pollution

Pollutant	Threshold of Significant Effect	
	Operation Phase	**Construction Phase**
Reactive Organic Gases (ROG)	55 lbs/day	75 lbs/day, 2.5 tons/quarter
Oxides of Nitrogen (NO_x)	55 lbs/day	100 lbs/day, 2.5 tons/quarter
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day, 24.75 tons/quarter
Fine Particulate Matter (PM10)	150 lbs/day	150 lbs/day, 6.75 tons/quarter

Source: *CEQA Air Quality Handbook*. South Coast Air Quality Management District. May, 1993 with updates through 2001.

In addition, the project would result in a significant impact related to CO hot spots if the proposed project will:

- Allow sensitive receptors to locate adjacent to intersections with CO hot spots, and/or
- Result in localized carbon monoxide concentrations near existing sensitive receptors

The State of California CO concentration standards, shown in Table 4, are 9 parts per million (ppm) during an 8-hour period and 20-ppm during a 1-hour period. If CO hot spots currently exist, then a 1-ppm increase attributable to the project over "no project" conditions for the one-hour period is considered a significant impact.

Environmental Impact

Development pursuant to General Plan policy over the next 20 years will result in the addition of approximately 6,213 units to the City's existing housing stock, for a total of 19,079 units, and an additional 5.41 million square feet of nonresidential development, for a total of 40.42 million square feet. This development will generate additional emissions from stationary sources and vehicle trips. Stationary sources are defined by AQMD to be those sources that emit pollution from industrial of commercial processes or various types of equipment. Table 3.3-5 reports the estimated air pollution emissions associated with the change in land uses at buildout of the Land Use Plan.

Table 8
Estimated Air Pollutant Emissions
Associated With Change in Land Use
(Pounds per Day)

Pollutant	Existing Land Use	Proposed Land Use	Difference	Percent Change
Reactive Organic Compounds	25,903	32,012	6,109	24%
Nitrogen Dioxide	11,639	7,081	(4,558)	(39%)
Carbon Monoxide	126,843	123,681	(3,162)	(2%)
Particulate Matter	6,903	10,191	3,288	48%

Source: URBEMIS 2001 Model Results

The change in air pollutants were determined based on the URBEMIS 2001 Air Pollution Model. As indicated in Table 8, total reactive organic compounds and particulate matter air pollutant emissions will increase over time, whereas nitrogen dioxide and carbon monoxide emissions will decrease. Over time, these pollutant emissions may decrease as a result of the phase-out of older automobiles from the vehicle fleet and the improvement of vehicle technology, particularly that of diesel vehicles. However, given that Brea lies within a non-attainment area and that any new development will contribute to a relative increase in emissions from mobile and stationary sources, air pollution levels will still exceed of SCAQMD thresholds. Air quality impacts associated with implementation of the General Plan will therefore be significant. However, the following General Plan goals and policies will assist to manage and minimize air quality impacts within the city:

Goal CR-13 Improve air quality.

Policy CR-13.2 Promote energy conservation and recycling by public and private sectors.

Policy CR-13.3 Integrate air quality planning with land use, economic development, and transportation planning.

Policy CR-13.4 Encourage the expansion and retention of local-serving retail businesses (e.g., restaurants, family medical offices, drug stores) to reduce the number and length of automobile trips to comparable services located in other jurisdictions.

Policy CR-13.5 Encourage alternative modes of transportation, such as walking, biking, and public transportation to reduce emissions associated with automobile use.

Policy CR-13.6 Cooperate with the South Coast Air Quality Management District and Southern California Association of Governments (SCAG) in their efforts to implement the regional Air Quality Management Plan.

Policy CR-13.7 Work with other responsible federal, State, and County agencies to decrease air pollution emissions occurring within the air basin.

Policy CR-13.8 Cooperate and participate in regional air quality management planning, programs, and enforcement measures.

To accomplish these goals and policies, the General Plan Implementation Guide calls for the City to continue to implement the Transportation Demand Management (TDM) ordinance of the 1997 Air Quality Management Plan. The ordinance specifies various TDM methods to reduce trips and influence travel modes such as:

- Trip reduction programs for City staff
- Van pool programs for private employers
- Employee incentives for public transit use
- Preferential parking for carpools
- Trip reduction programs for major commercial centers
- Alternative transportation modes for major events

The City will also promote retrofit programs within City facilities to reduce energy usage and consequently reduce emissions from energy consumption. Informational literature about available retrofit programs will be provided to all City offices. In addition, the City will review development proposals for potential air quality impacts pursuant to the California Environmental Quality Act (CEQA), Orange County Air Pollution Control District, and the South Coast Air Quality Management District CEQA Air Quality Handbook; construction impacts can be reduced by enforcing SCAQMD Rule 1403.

Implementation of the General Plan goals, policies, and implementation programs will facilitate the reduction of air pollutant emissions over the long term. However, long-term reactive organic compounds and particulate matter air pollutant emissions are anticipated to increase. Thus, air quality impacts associated with these two pollutants will be significant and unavoidable.

Carbon Monoxide Hot Spots

To identify CO hot spots, SCAQMD recommends analyzing intersections where an existing level of service (LOS) C will deteriorate one full LOS level or more, or where an existing LOS D (or worse) will deteriorate to any degree. In addition to intersections that meet either of these criteria, those intersections that have existing or proposed sensitive receptors immediately adjacent to the intersection were also analyzed. The following intersections meet one or more of the aforementioned criteria:

1. Puente and Central
2. Berry and Central
3. Brea Boulevard and Central/College
4. Brea Boulevard and Lambert
5. State College and Lambert
6. Kraemer and Lambert
7. Valencia and Lambert
8. Brea Boulevard and Birch
9. State College and Birch
10. Associated (S) and Birch
11. Kraemer and Birch
12. Puente and Imperial Highway
13. Brea Boulevard and Imperial Highway
14. Randolph and Imperial Highway
15. State College and Imperial Highway
16. SR-57 SB Ramps and Imperial Highway
17. SR-57 NB Ramps and Imperial Highway
18. Associated and Imperial Highway
19. Kraemer and Imperial Highway
20. Valencia and Imperial Highway
21. Brea Boulevard and Tonner Canyon

Out of these 21 intersections, 8 have existing sensitive receptors located adjacent to the intersection, or the Land Use Plan permits sensitive receptors to locate there in the future. Table 9 lists these intersections.

Table 9
CALINE-4 Intersection Analysis Results

Intersection	Receptor	Concentration		Change in Conc	Currently Incompatible	Significant Impact
		Existing	Future			
Central & Puente	Mixed-Use	19.5	20.8	1.3		✓
	Medium Density Res	9.4	10.2	0.8		
Central & Berry	Medium Density Res	20.6	22.5	1.9	✓	✓
	Medium Density Res	21.2	23.3	2.1	✓	✓
Central & Brea	Low Density Res	13.3	14.3	1.0		
Lambert & Brea	School	14.4	16.6	2.2		
Lambert & State College	Low Density Res	8.3	9.4	1.1		
	Low Density Res	14.1	15.6	1.5		
	Low Density Res	19.7	23.2	3.5		✓
	Church	6.9	7.6	0.7		
Lambert & Valencia	Low Density Res	7.6	13.8	6.2		
	Low Density Res	5.9	11.8	5.9		
	Medium Density Res	5.4	9.1	3.7		
	High Density Res	5.7	10.7	5.0		
Imperial & Brea	Mixed-Use	31.3	44.3	13.0	✓	✓
	Mixed-Use	30.8	41.8	11.0	✓	✓
Imperial & Valencia	Mixed-Use	10.9	15.6	4.7		
	Low Density Res	5.5	7.6	2.1		

A CALINE-4 analysis was conducted to identify potential CO concentrations at these 8 intersections. Appendix C includes worksheets documenting the methods used to estimate air pollutant emissions and atmospheric dispersion of pollutants from traffic generated by buildout of the Land Use Plan, in addition to ambient growth by year 2020. The downwind concentrations of CO were estimated for the worst-case atmospheric conditions resulting in the least dispersion of pollutants. These atmospheric conditions which may occur on up to 5 to 10 days per year, typically occur during the morning hours from 7 A.M. to 10 A.M. or 11 A.M., when low wind speeds (less than 1 meter per second), stable air, and constant wind direction combine to minimize dispersal of pollutants. In more typical morning conditions, less stable air and substantially more variation in wind direction disperse pollutants over a much wider area, minimizing the area exposed to the highest pollutant levels. During other times of the day, much lower stability and higher wind speeds are typical.

Assuming worst-case conditions, 4 of these 8 intersections will result in a plume of high pollutant concentrations. The CO concentrations exceed the State 1-hour standard of 20 parts per million (ppm) at Puente/Central (proposed for Mixed Use II) and State College/Lambert. The CO concentrations are projected to increase by more than 1 ppm at existing hotspots around Central/Berry and Brea/Imperial Highway (proposed for Mixed Use I). (The likelihood of residential uses being built at or in close proximity to the Brea/Imperial Highway intersection is considered low, given the commercial character of the area and the high traffic volumes through the

intersection. In addition, existing residential units are located far away enough to not be impacted by idling vehicles at the intersection.) Impact at these 4 intersections is considered significant.

Land use policy provides for compact land use patterns on South Brea Boulevard, across from the Civic and Cultural Center, and on the Unocal property (Hartley Research Center) east of Valencia Avenue and north of Imperial Highway. Compact patterns are intended to encourage compatible uses that facilitate walking and biking. Policy implementation will contribute to reductions in vehicle use for short trips and thus further air quality improvement goals.

Mitigation Measures

Mitigation is required to reduce long-term reactive organic compounds and particulate matter emissions. Policies within the Community Resources Chapter of the General Plan will facilitate continued City cooperation with the SCAQMD and SCAG to achieve regional air quality improvement goals, promotion of energy conservation design and development techniques, encouragement of alternative transportation modes, and implementation of transportation demand management strategies. In addition to these policies, the following mitigation measures are recommended to reduce air quality impacts:

1. The City shall reduce vehicle emissions caused by traffic congestion by implementing transportation systems management techniques that include synchronized traffic signals and limiting on-street parking.

2. The City shall encourage major employers, tenants in business parks and other activity centers, and developers of large new developments to participate in transportation management associations.

3. The City shall consider the feasibility of diverting commercial truck traffic to off-peak periods to alleviate non-recurrent congestion as a means to improve roadway efficiency.

At the individual development project level, it is recommended that the City apply the following mitigation measures related General Plan policies which will slowly work toward regional emissions reductions:

4. The City will encourage the incorporation of energy conservation techniques (i.e. installation of energy saving devices, construction of electric vehicle charging stations, use of sunlight-filtering window coatings or double-paned windows, utilization of light-colored roofing materials as opposed to dark-colored roofing materials, and placement of shady trees next to habitable structures) in new developments.

5. The City will encourage the incorporation of bus stands, bicycle racks, bicycle lanes, and other alternative transportation related infrastructure in new developments.

Carbon Monoxide Hot Spots

Future sensitive receptors may locate adjacent to the following two intersections: Puente/Central and Brea Boulevard/Imperial Highway. These locations may experience CO hotspots on only a few days per year. Elimination of the conditions that cause the hotspot is the preferred way to mitigate the impact. Improved traffic flow due to intersection improvements and enhanced signal timing will help. However, because the precise improvements cannot be defined at this time, the degree to which conditions may improve cannot be modeled accurately. Therefore, the exposure of sensitive receptors to the potential CO hotspots at these locations can be mitigated in the following way:

6. For any new development proposed to locate within approximately 150 feet of the Puente/Central and Brea Boulevard/Imperial Highway intersections in which sensitive receptors generally reside (i.e. residences), the developer shall be responsible for ensuring air-tight construction. Air conditioning must be provided so that open windows will not be relied upon for cooling in the summer.

At the intersections of State College/Lambert and Berry/Central, existing residences will be exposed to increased CO concentrations that will result from increased traffic volumes over time. The best approach to addressing these conditions is to modify the intersections and increase vehicle movement efficiencies. The Circulation component of the Community Development chapter includes provisions for reconfiguration of the Lambert/SR-57 interchange. Such improvements will also necessitate improvements to the intersection of State College/Lambert. The following mitigation measure will work to improve traffic conditions at State College/Lambert and thus minimize CO concentrations:

7. Improvement plans for the Lambert/SR-57 interchange will include complementary enhancements to the State College/Lambert intersection to improve its efficiency. Potential enhancements may include an additional northbound turn lane on State College and improved signal timing.

With regard to the Berry/Central and Puente/Central intersections, circulation system improvements can address the projected CO hotspot. The General Plan does not provide specific policy for this intersection but does address citywide improvements in traffic flow. The following mitigation measure will help minimize CO concentrations at these intersections over the long term:

8. As part of its continuing program to enhance traffic flow citywide, the City will monitor conditions at the Central/Berry and Central/Puente intersections to ensure that air quality impacts are minimized through traffic signal timing and, if necessary, physical changes to the intersection (e.g., restriping).

Level of Impact after Mitigation

With implementation of the identified goals and policies in the General Plan and mitigation measures, air quality impacts will be substantially lessened. However, the degree to which these measures will reduce reactive organic compounds and particulate matter emissions cannot be quantified at this time. Air pollutants levels will still continue to exceed the SCAQMD threshold criteria for significance. Impact will be significant and unavoidable.

Carbon Monoxide Hot Spots

Incorporation of mitigation will reduce the impact on potential future sensitive receptors at the Puente/Central and Brea/Imperial Highway intersections. Future CO hotspots that would affect existing sensitive receptors around Berry/Central and State College/Lambert can also be reduced. However, the extent to which mitigation will reduce CO levels cannot be quantified given the uncertain nature of future uses and intersection improvements. Thus, with implementation, impact is still considered significant.

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3.4 Noise

This section evaluates whether implementation of the General Plan will expose persons to noise levels in excess of established standards, expose persons to excessive groundborne vibration, permanently substantially increase ambient noise levels, or temporarily substantially increase ambient noise levels. This section is based on a noise analysis prepared for the General Plan.

Environmental Setting

Noise is generally defined as unwanted sound. Noise can result in speech interference and disrupt activities at home and work, including sleep patterns and recreational pursuits. The long-term effects of excessive noise exposure are physical as well as psychological. Physical effects may include headaches, nausea, irritability, constriction of blood vessels, changes in heart and respiratory rate, and increased muscle tension.

How Sound is Measured

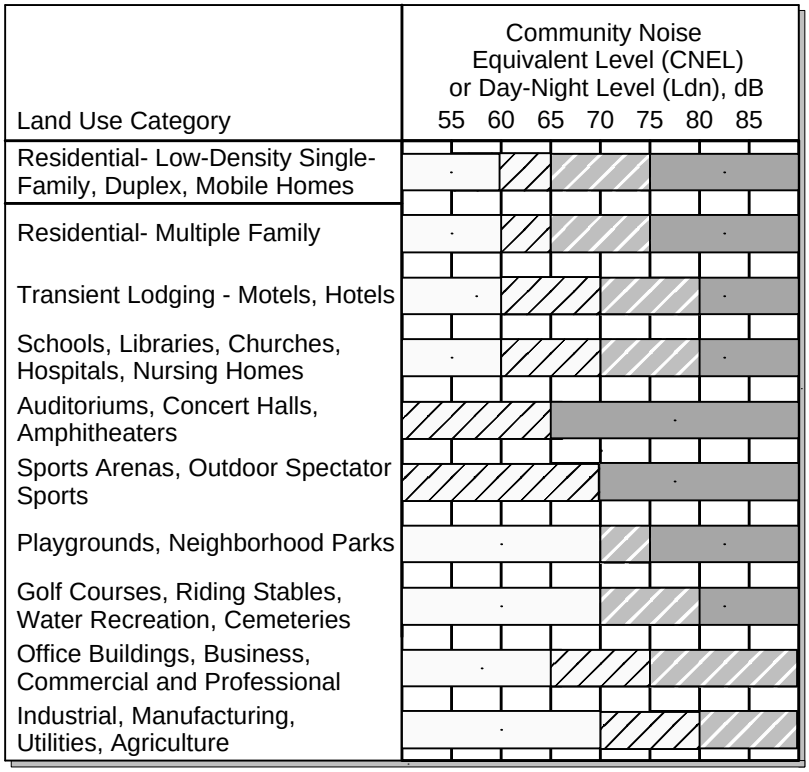
Sound levels are expressed on a logarithmic scale of "decibels" (abbreviated as dB), in which a change of 10 units on the decibel scale reflects a 10-fold increase in sound energy. A 10-fold increase in sound energy roughly translates to a doubling of perceived loudness.

In evaluating human response to noise, acousticians compensate for the response of people to varying frequency or pitch components of sound. The human ear is most sensitive to sounds in the middle frequency range used for human speech and is less sensitive to lower and higher-pitched sounds. The "A" weighting scale is used to account for this sensitivity. Thus, most community noise standards are expressed in decibels on the "A"-weighted scale, abbreviated dB(A). Zero on the decibel scale is set roughly at the threshold of human hearing. Sound levels of common sounds in the environment include office background noise at about 50 dB(A); human speech 10 feet away at about 60 to 70 dB(A); cars driving by 50 feet away at 65 to 70 dB(A); trucks driving by 50 feet away at 75 to 80 dB(A); and aircraft flights directly overhead one mile away at about 95 to 100 dB(A).

Noise Standards

The community noise environment consists of a wide variety of sounds, some near and some far away, which vary over the 24-hour day. People respond to the 24-hour variation in noise but are most sensitive to noise at night. California standards for community noise use the Community Noise Equivalent Level (CNEL), in which a 5-decibel penalty is added to the 7 to 10 pm period, and a 10-decibel penalty to the 10 pm to 7 am period. The U.S. Environmental Protection Agency uses the Day-Night Noise Level (Ldn) scale, which is identical to the CNEL except that the evening noise penalty is not added on this scale. For all practical purposes, the CNEL and Ldn scales are equivalent.

Figure 3
Noise/Land Use Compatibility



Nature of the noise environment where the CNEL or Ldn level is:

Below 55 dB
Relatively quiet suburban or urban areas, no arterial streets within 1 block, no freeways within 1/4 mile.

55-65 dB
Most somewhat noisy urban areas, near but not directly adjacent to high volumes of traffic.

65-75 dB
Very noisy urban areas near arterials, freeways or airports.

75+ dB
Extremely noisy urban areas adjacent to freeways or under airport traffic patterns. Hearing damage with constant exposure outdoors.

Normally Acceptable
Specified land use is satisfactory, based on the assumption that any buildings are of normal conventional construction, without any special noise insulation requirements

Conditionally Acceptable
New construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Normally Unacceptable
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in design.

Clearly Unacceptable
New construction or development should generally not be undertaken.

The Community Noise Equivalent Level (CNEL) and Day-Night Noise Level (Ldn) are measures of the 24-hour noise environment. They represent the constant A-weighted noise level that would be measured if all the sound energy received over the day were averaged. In order to account for the greater sensitivity of people to noise at night, the CNEL weighting includes a 5-decibel penalty on noise between 7:00 p.m. and 10:00 p.m. and a 10-decibel penalty on noise between 10:00 p.m. and 7:00 a.m. of the next day. The Ldn includes only the 10-decibel weighting for late-night noise events. For practical purposes, the two measures are equivalent for typical urban noise environments.

Figure 3 illustrates a land use compatibility matrix based on noise generation and noise sensitivity. Residential uses generally are the most sensitive to noise. Other noise-sensitive land uses include schools, libraries, hospitals, churches, offices, hotels, and outdoor recreational areas.

Existing Noise

Brea is primarily affected by roadway and freeway traffic noise, and, to a lesser degree, industrial and commercial activities located adjacent to residential uses. Mechanical equipment, playgrounds, leaf blowers, and construction equipment are examples of random noise sources that can contribute to neighborhood noise. The primary noise generators in Brea include SR-57, Imperial Highway, Brea Boulevard, and Valencia Avenue. Truck traffic associated with the Olinda-Alpha landfill represents a primary noise source along Valencia Avenue and Imperial Highway, east of SR-57. Another prominent roadway with excessive noise levels is Lambert Road which carries traffic to SR-57, and Imperial Highway, particularly west of SR-57 where no noise barriers have been constructed. In addition, neighborhoods in the northwest corner of the City adjacent to industrial and commercial uses experience high noise levels.

Existing traffic noise levels were modeled based on the traffic study prepared for the General Plan. Figure 4 shows the existing noise contours along the analyzed street segments. As the figure indicates, much of the noise is generated along SR-57 and Imperial Highway. A total of 66 streets segments were identified and analyzed along which noise-sensitive uses are located or where significant traffic flows pass. The existing average daily traffic and traffic noise levels along those street segments are summarized in Table 10. The existing noise levels along 36 of the 66 segments are currently incompatible with the surrounding land uses, primarily residential neighborhoods, as they exceed the conditionally acceptable levels. Noise levels within 50 feet of the roadway centerline for these 36 segments range from 67.0 to 83.0 dB(A), whereas the conditionally acceptable range for single-family residential uses is 60 to 65 dB(A), 60 to 70 dB(A) for schools, and less than 70 dB(A) for parks.

Related Plans and Programs

California Noise Insulation Standards (Title 24)

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for residential buildings (Title 24, Part 2, California Code of Regulations). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or Ldn) of 60 dB or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or Ldn) of no more than 45 dB.

Table 10 Noise Impact from Project and Cumulative Traffic on Various Roadway Segments

Arterial / Reach	Adjancent Sensitive Land Uses	Average Daily Traffic		CNEL @ 50' From Near Lane C/L		Currently Incompatible	Change from Existing	Significant Impact
		Existing	Future	Existing	Future			
ASSOCIATED ROAD								
Imperial to Birch (East Side)	✓	11,000	13,000	64.5	65.0		0.5	
Imperial to Birch (West Side)	✓	11,000	13,000	64.5	65.0		0.5	
Birch to Lambert (East Side)	✓	6,000	8,000	62.0	63.0		1.0	
Birch to Lambert (West Side)	✓	6,000	8,000	62.0	63.0		1.0	
North of Lambert (East Side)	✓	--	3,000	--	59.5			
North of Lambert (West Side)		--	3,000	--	59.5			
BERRY STREET								
Imperial to Lambert		11,000	11,000	65.5	65.5		0.0	
Lambert to Central		8,000	10,000	64.5	65.5		1.0	
Central to Northwood	✓	5,000	7,000	62.5	64.0		1.5	
BIRCH STREET								
Brea to Randolph	✓	19,000	26,000	67.0	68.0	✓	1.0	
Randolph to State College	✓	20,000	33,000	67.0	69.0	✓	2.0	
State College to Associated	✓	22,000	30,000	69.5	71.0	✓	1.5	
Associated to Associated (N. Side)	✓	21,000	32,000	69.5	71.5	✓	2.0	
Associated to Associated (S. Side)	✓	21,000	32,000	69.5	71.5	✓	2.0	
Associated to Kraemer (N. Side)	✓	17,000	28,000	68.5	70.5	✓	2.0	
Associated to Kraemer (S. Side)	✓	17,000	28,000	68.5	70.5	✓	2.0	
Kraemer to Valencia (N. Side)	✓	13,000	18,000	68.5	69.5	✓	1.0	
Kraemer to Valencia (S. Side)		13,000	18,000	68.5	69.5		1.0	
BREA BOULEVARD								
South of Imperial	✓	31,000	37,000	70.0	71.0	✓	1.0	
Imperial to Birch	✓	34,000	46,000	70.5	72.0	✓	1.5	
Birch to Lambert	✓	27,000	34,000	69.5	70.5	✓	1.0	
Lambert to Central	✓	15,000	18,000	67.0	68.0	✓	1.0	
North of Central	✓	15,000	11,000	67.0	65.5	✓	-1.5	
CARBON CANYON ROAD (RT. 142)								
Valencia to Lilac Ln. (North Side)	✓	18,000	38,000	69.0	72.5	✓	3.5	✓
Valencia to Lilac Ln.		18,000	38,000	69.0	72.5		3.5	
East of Lilac Ln.	✓	18,000	38,000	69.0	72.5	✓	3.5	✓
CENTRAL AVENUE								
West of Puente	✓	25,000	23,000	69.0	69.0	✓	0.0	
Puente to Berry	✓	34,000	27,000	70.5	69.5	✓	-1.0	
Berry to Brea	✓	34,000	34,000	70.5	70.5	✓	0.0	
IMPERIAL HIGHWAY (RT. 90)								
West of Puente		46,000	49,000	74.5	74.5		0.0	
Puente to Berry	✓	50,000	58,000	74.5	75.5	✓	1.0	
Berry to Brea	✓	57,000	70,000	73.5	74.5	✓	1.0	
Brea to Randolph		57,000	59,000	73.5	73.5		0.0	
Randolph to State College		60,000	74,000	73.5	74.5		1.0	
State College to SR-57		72,000	84,000	75.5	76.5		1.0	
SR-57 to Associated		47,000	64,000	73.5	75.0		1.5	
Associated to Placentia	✓	--	54,000	--	74.5			
East of Placentia		--	65,000	--	75.0			
West of Kraemer		--	51,000	--	74.0			
Kraemer to Valencia		40,000	52,000	75.0	76.0		1.0	
Valencia to Rose	✓	35,000	48,000	73.5	75.0	✓	1.5	

Table 10 Noise Impact from Project and Cumulative Traffic on Various Roadway Segments (cont.)

Arterial / Reach	Adjancent Sensitive Land Uses	Average Daily Traffic		CNEL @ 50' From Near Lane C/L		Currently Incompatible	Change from Existing	Significant Impact
		Existing	Future	Existing	Future			
LAMBERT ROAD								
West of Puente		37,000	50,000	71.0	72.5		1.5	
Puente to Berry		37,000	43,000	71.0	71.5		0.5	
Berry to Brea	✓	38,000	48,000	71.0	72.0	✓	1.0	
Brea to State College	✓	39,000	48,000	71.0	72.0	✓	1.0	
State College to SR-57	✓	58,000	67,000	73.0	73.5	✓	0.5	
SR-57 to Associated (South Side)		34,000	46,000	70.5	72.0		1.5	
SR-57 to Associated (North Side)		34,000	46,000	70.5	72.0		1.5	
Associated to Kraemer	✓	25,000	37,000	69.0	71.0	✓	2.0	
Kraemer to Valencia	✓	14,000	35,000	67.5	71.5	✓	4.0	✓
PLACENTIA AVENUE								
South of Imperial	✓	--	9,000	--	66.0			
PUENTE STREET								
South of Imperial	✓	--	5,000	--	63.5			
Imperial to Lambert		7,000	11,000	64.0	66.5		2.5	
Lambert to Central	✓	8,000	9,000	64.5	66.0		1.5	✓
Central to Whittier	✓	7,000	7,000	63.0	63.0		0.0	
North of Whittier	✓	--	3,000	--	59.5			
ROSE DRIVE								
East of Valencia	✓	14,000	22,000	68.5	70.5	✓	2.0	
STATE COLLEGE BOULEVARD								
Brea to Lambert (North Side)	✓	23,000	31,000	69.0	70.0	✓	1.0	
Brea to Lambert (South Side)	✓	23,000	31,000	69.0	70.0	✓	1.0	
Lambert to Birch	✓	22,000	25,000	68.5	69.0	✓	0.5	
Birch to Imperial		14,000	17,000	66.5	67.5		1.0	
South of Imperial		22,000	39,000	69.5	72.0		2.5	
TONNER CANYON ROAD								
Brea Canyon to SR-57 (East Side)	✓	--	3,000	--	61.5			
Brea Canyon to SR-57 (West Side)	✓	--	3,000	--	61.5			
BREA CANYON ROAD								
Tonner Canyon to SR-57	✓	15,000	11,000	71.0	69.5	✓	-1.5	
North of SR-57	✓	15,000	11,000	69.0	67.5	✓	-1.5	
VALENCIA AVENUE (ROUTE 142)								
South of Imperial	✓	8,000	10,000	66.0	67.0	✓	1.0	
Imperial to Birch	✓	9,000	19,000	68.0	71.0	✓	3.0	✓
Birch to Lambert	✓	14,000	22,000	70.0	71.5	✓	1.5	
WHITTIER BOULEVARD								
West of Puente	✓	--	6,000	--	60.0			
KRAEMER BOULEVARD								
South of Imperial		--	28,000	--	70.5			
Imperial to Birch	✓	19,000	33,000	69.0	71.5	✓	2.5	
Birch to Lambert	✓	17,000	30,000	68.5	71.0	✓	2.5	
SR-57 FREEWAY								
Imperial to Lambert	✓	212,000	295,000	81.0	82.5	✓	1.5	
Lambert to Tonner Canyon	✓	201,000	303,000	81.0	83.0	✓	2.0	
North of Tonner Canyon		192,000	289,000	80.5	82.5		2.0	

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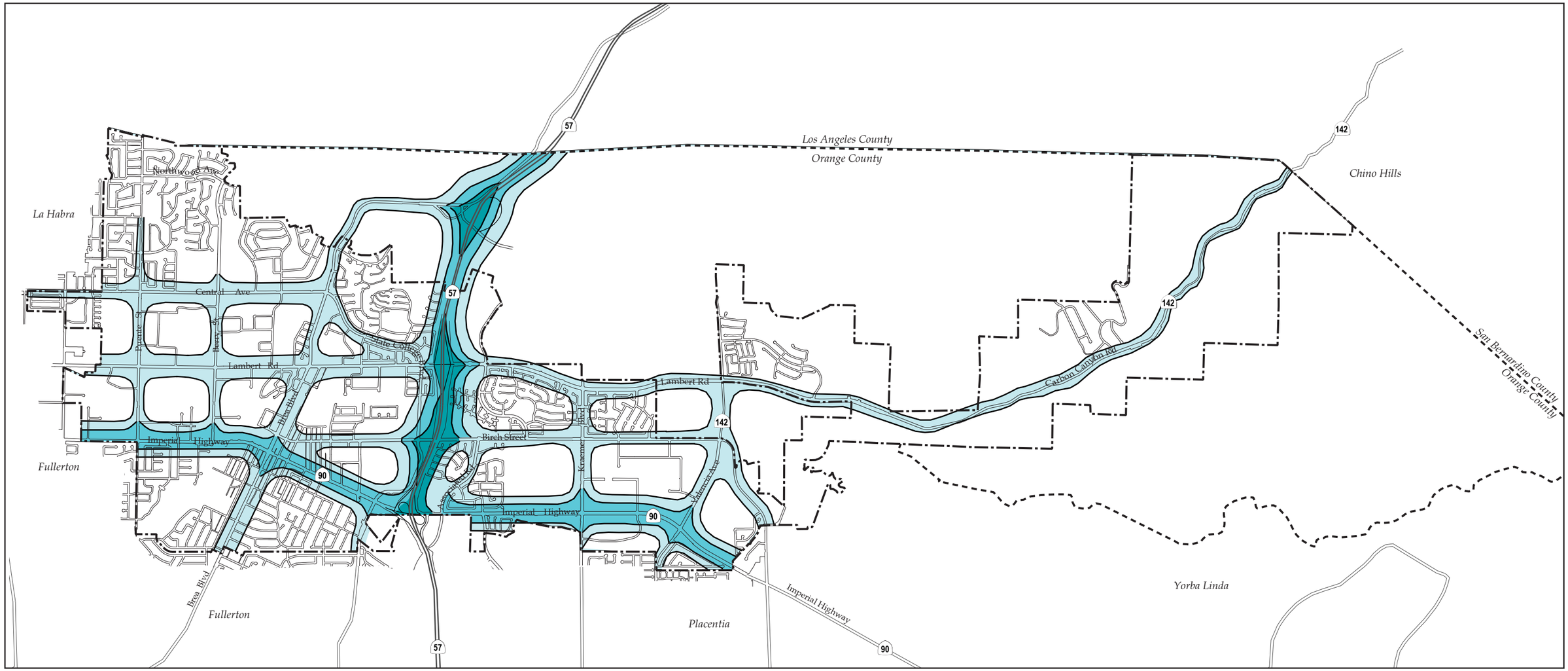


Source: Weiland Associates, 2001.

Legend

- City Boundary
- Sphere of Influence

Community Noise Equivalent Level (CNEL) Contours

- Less than 60 CNEL
- 60 to 65 CNEL
- 65 to 70 CNEL
- Greater than 70 CNEL

N
W E
S
City of Brea General Plan

0 3,000 6,000 9,000 12,000 Feet

0 0.5 1 1.5 2 Miles

BREA GENERAL PLAN

Figure 4
Noise Contours (2001)

Thresholds Used to Determine Level of Impact

Noise impact is considered significant if the future noise levels will exceed acceptable levels at noise-sensitive locations (e.g.,residences, schools, daycare facilities, and parks) or contribute a 3 dB(A) or greater increase along roadways where noise/land use incompatibilities currently exist. The 3 dB(A) threshold represents an increase in noise level which is perceived as "just noticeable." A 6 dB(A) increase in noise level is perceived as "clearly noticeable," a 10 dB(A) increase is perceived as "twice as loud," and a 20 dB(A) increase as "four times as loud."[1]

Environmental Impact

Development pursuant to Plan policy will result in development of remaining vacant and underutilized land and more intensive development in some areas of Brea. This will generate additional traffic that will increase noise levels along the roadways. Goals and policies included in the General Plan Public Safety Chapter are intended to substantially lessen noise impacts on new and existing development to acceptable levels.

Goal PS-9 Minimize the impact of point source noise and ambient noise levels throughout the community.

Policy PS-9.2 Ensure that the noise standards set forth in the Municipal Code reflect standards most appropriate for Brea.

Policy PS-9.3 Ensure that acceptable noise levels are maintained near schools, hospitals, convalescent homes, and other noise sensitive areas in accordance with the City's Municipal Code and noise standards contained in the General Plan.

Policy PS-9.5 Avoid placing high-noise activity centers near residential areas.

Goal PS-2 Minimize the impacts of transportation-related noise.

Policy PS-2.1 Reduce transportation noise by imposing traffic restrictions where necessary.

Policy PS-2.2 Work with the counties of Orange and Los Angeles to include noise mitigation measures in the design of new roadway projects.

To accomplish these goals and policies, the General Plan Implementation Guide calls for the City to ensure that new developments are exposed to acceptable noise levels by requiring:

- Acoustical analyses for all proposed development within the 60 CNEL contour
- Acoustical analyses for all proposed residential projects in the vicinity of existing and proposed commercial and industrial areas
- Noise control measures to be incorporated into the proposed development to reduce noise to acceptable levels

[1] *Environmental Acoustics.* Leslie I. Doelle, Eng., 1972.

To minimize transportation-related noise impacts, the City will limit delivery or service hours for stores with loading areas, docks or trash bins that front, side, border, or gain access on driveways next to residential and other noise sensitive areas. Also, the City will coordinate with the Brea Police Department and the California Highway Patrol to enforce the California Vehicle Code pertaining to noise standards for cars, trucks, and motorcycles. Incorporation of noise control measures, such as sound walls and berms, into roadway improvement projects will also mitigate impacts to adjacent development. In addition, the City will request Caltrans and the Orange County Transportation Authority (OCTA) to provide noise control for roadway projects within the city and sphere of influence.

Even with implementation of these goals, policies, and programs, noise levels are expected to increase as a result of traffic increases on arterial streets associated with new development pursuant to the General Plan. Figure 5 depicts the CNEL contours generated by the projected traffic volumes. The 57 Freeway and Imperial Highway will continue to be the predominant noise sources within the city. As freeway volumes increase over time, the ambient noise levels on adjacent properties will also increase. The 65 to 70 CNEL noise contour now appears on portions of Lambert Avenue and Kraemer Avenue. Increasing population and development density will increase community disturbance from people and their activities. Industrial facilities, and to a lesser extent, any large commercial, public, and residential developments have the potential to emit increased noise levels.

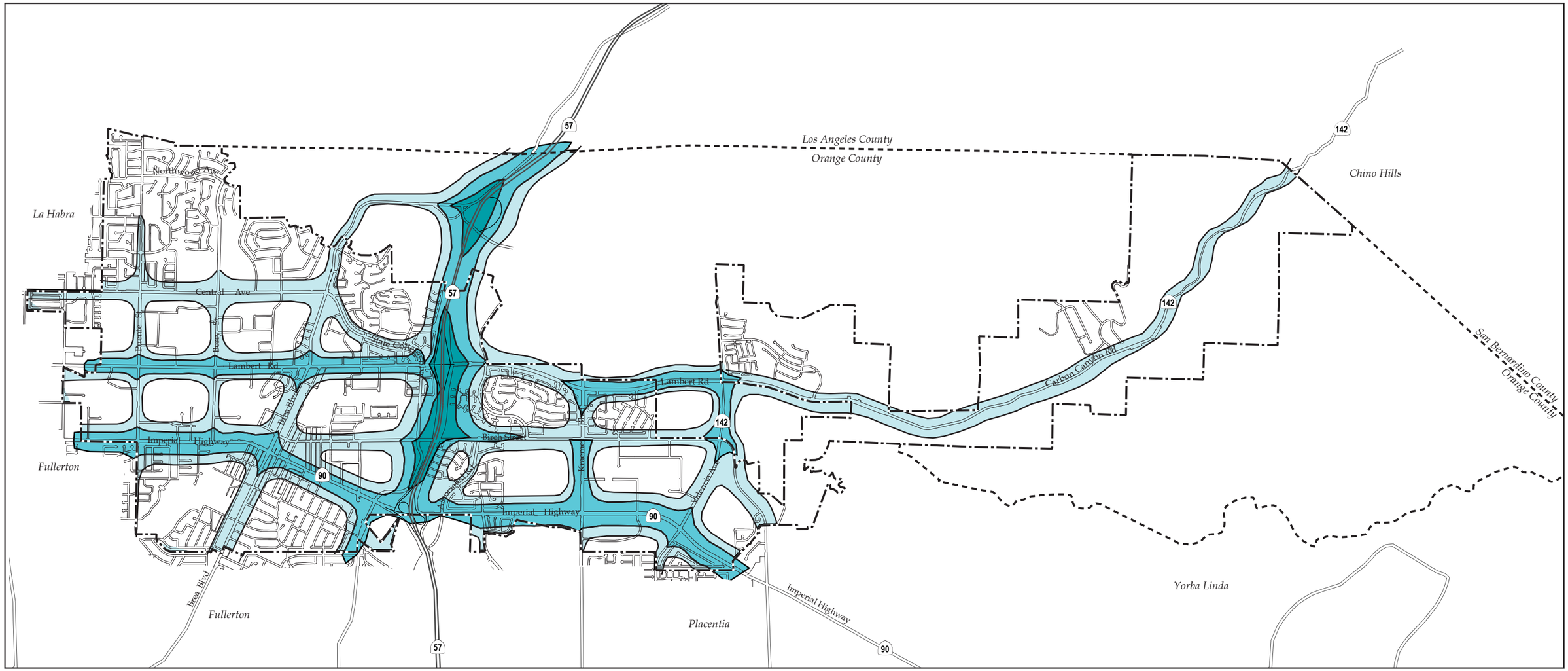
Table 10 summarizes the results for estimated future average daily traffic and noise levels for particular roadway segments in the City. Increases in noise levels will result in unacceptable noise levels for existing residential areas for the following roadway segment:

- Puente Street between Lambert and Central

This represents a significant environmental impact. Also, a noise increase of 3.0 dB or greater at roadway segments with currently incompatible noise levels is projected to occur at the following four roadway segments, as shown in Table 10:

- Lambert Road between Kraemer and Valencia
- Valencia Avenue between Imperial and Birch
- Carbon Canyon Road between Valencia and Lilac
- Carbon Canyon Road east of Lilac

Noise levels along Lambert Road and Valencia Avenue will result in a significant impact to any current and future residential use locating adjacent to the roadways. With regard to Carbon Canyon Road, topographic conditions will probably prevent residential uses from locating near the roadway. Development would occur in more removed canyon areas and other flatter spaces; thus, excessive noise exposure to sensitive receptors along Carbon Canyon Road is not anticipated to occur. Noise impacts within the city as a result of additional growth, locally as well as regionally, will be significant.



Source: Weiland Associates, 2001.

Legend

- City Boundary
- Sphere of Influence

Community Noise Equivalent Level (CNEL) Contours

- Less than 60 CNEL
- 60 to 65 CNEL
- 65 to 70 CNEL
- Greater than 70 CNEL

N
W City of Brea General Plan E
S

0 3,000 6,000 9,000 12,000 Feet

0 0.5 1 1.5 2 Miles

BREA GENERAL PLAN

Figure 5
Future Noise Contours

Stationary Noise

New development resulting from long-term General Plan implementation may result in additional noise generated by non-residential projects, such as commercial centers, restaurants and bars, religious institutions, and civic centers. These types of uses are allowed throughout Brea. The following General Plan goals and policies are targeted to minimize stationary noise impacts:

Goal PS-3 Minimize noise impacts from sources other than transportation.

Policy PS-3.1 Require the inclusion of noise mitigation measures, techniques, and design features in the planning, design, and construction of future development and redevelopment projects.

Policy PS-3.2 Require that mixed-use structures be designed to prevent transfer of noise and vibration from commercial/retail to residential use.

Policy PS-3.3 Minimize stationary noise sources and noise emanating from construction activities and special events.

Policy PS-3.4 Require new non-residential developments to plan their delivery areas away from existing residential areas.

Policy PS-3.5 Continue active enforcement to limit commercial and industrial delivery hours adjoining residential areas.

Noise generated by future developments will be controlled through a site design review process. Noise generation and potential impacts to surrounding development will continue to be considered as a part of the City's review of individual future projects. Compliance with existing City standards and regulations will avoid creating significant impacts.

Mitigation Measures

Implementation of the goals and policies contained in the General Plan will help reduce the noise impact from stationary sources and transportation sources on sensitive land uses throughout the city. Potential impact to noise-sensitive uses along Puente Street between Lambert and Central, Lambert Road between Kraemer and Valencia, and Valencia Avenue between Imperial and Birch, is anticipated to be significant.

To mitigate impacts from roadway noise to future sensitive land uses along Lambert Road, Valencia Avenue, and Puente Street, the following will be required:

1. The City will require applicants/developers to perform site-specific acoustical analyses for future residential, mixed-used, and other noise-sensitive land uses proposed to be located along Lambert Road, Valencia Avenue, and Puente Street. Consistent with the recommendations of such analyses and as directed by City staff, applicants/developers shall design and construct noise control measures such as berms and walls; incorporate sound-

attenuating architectural design and construction methods; and include increased setback allowances to move residential units outside of noise impact areas and minimize noise impacts to residential units.

To mitigate impacts from roadway noise to existing sensitive land uses along Puente Street between Central and Lambert Road, the City shall undertake the following measure:

2. The City will keep records of noise complaints from existing sensitive receptor sites along Puente Street and Lambert Road. If, over time, complaints increase substantially and noise levels can be attributed to traffic volumes on adjacent roadways, the City will address compliance with Health and Safety Code requirements pertinent to the particular land use at that point in time. Means of addressing noise issues could include, but are not limited to, providing information to property owners regarding sound insulation approaches or requiring high-volume traffic generators to fund noise reduction programs.

Level of Impact after Mitigation

Long-term impact of noise levels on noise-sensitive land uses along Lambert Road between Kraemer and Valencia, Puente Street between Lambert and Central, and Valencia Avenue between Imperial and Birch will be mitigated to a less than significant level.

3.5 Biological Resources

This section of the EIR discusses the impact of implementation of the General Plan on biological resources in Brea. The compatibility of the General Plan with the Natural Community Conservation Plan is discussed in Section 3.1, Land Use.

Environmental Setting

Regulatory Setting

The State of California and the federal government have afforded certain plant and animal species special legal and/or management protection out of concern for their continued existence. Several categories of protection have been developed, depending on the magnitude of threat to population levels.

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) administers the federal Endangered Species Act (FESA). The FESA categorizes species that potentially could become extinct in the near future as either threatened or endangered. FESA defines endangered as any plant or animal species that is in danger of extinction throughout all or a significant portion of its range, and threatened as any species that is likely to become endangered in the foreseeable future. Species included on either of these lists are afforded special protection under the law.

FESA prohibits the "taking" of threatened or endangered species. To "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct, and can include disturbance of habitats used by threatened or endangered species. FESA, however, does allow USFWS to take when it is incidental to, but not the purpose of, an otherwise unlawful act. Authorization is granted by one of three means: issuance of a 10[a] Permit, landowner participation in a Section 7 Consultation, or compliance with the Section 4[d] Special Rule.

Federal Migratory Bird Treaty Act

The Migratory Bird Treaty Act implements various treaties and conventions between the U.S. and Canada, Japan, Mexico and the former Soviet Union for the protection of migratory birds. Under the Act, taking, killing or possessing migratory birds is unlawful.

Unless permitted by regulations, the Act provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling, purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zones, distribution, abundance, economic

value, breeding habits and migratory flight patterns. Regulations are effective upon Presidential approval.

The Act makes it unlawful to ship, transport or carry from one state, territory or district to another, or through a foreign country, any bird, part, nest or egg that was captured, killed, taken, shipped, transported or carried contrary to the laws from where it was obtained; and to import from Canada any bird, part, nest or egg obtained contrary to the laws of the province from which it was obtained.

Federal Bald Eagle Protection Act

This law provides for the protection of the bald eagle (the national emblem) and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds. The 1972 amendments increased penalties for violating provisions of the Act or regulations issued pursuant thereto and strengthened other enforcement measures. Rewards are provided for information leading to arrest and conviction for violation of the Act.

The 1978 amendment authorizes the Secretary of the Interior to permit the taking of golden eagle nests that interfere with resource development or recovery operations. A 1994 Memorandum (59 F.R. 22953, April 29, 1994) from President Clinton to the heads of Executive Agencies and Departments sets out the policy concerning collection and distribution of eagle feathers for Native American religious purposes.

State Endangered Species Act

The California Department of Fish and Game (CDFG) administers the State Endangered Species Act. The State of California considers an endangered species one whose prospects of survival and reproduction are in immediate jeopardy; a threatened species is one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management; and a rare species is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. Rare species status applies to California native plants as well. State threatened and endangered species are fully protected against taking. Species of Special Concern is an informal designation used by CDFG for some declining wildlife species that are rare but not candidates for listing as threatened or endangered. The designation does not provide legal protection, but signifies that these species are recognized as sensitive by CDFG.

Existing Conditions

The City and its sphere of influence area are located in the southwestern portion of the South Coast sub-region of the California Floristic Province. The topography of Brea varies considerably and is characterized by areas that are relatively flat to hilly. The northeastern and eastern portion of the city is characterized by moderate to steep hills extending up to 1,200 feet above mean sea level with numerous minor and major canyons. Vegetation associated with residential, commercial, and industrial land uses is generally comprised of non-native ornamental species commonly used for landscaping purposes. Native or naturalized vegetation communities remaining in the City's corporate boundary are limited to grassland, coastal sage scrub and riparian. Remaining native vegetation is highly fragmented and isolated. The principal drainage feature within the City's corporate boundaries includes Carbon Canyon and its associated tributaries.

The sphere of influence area also exhibits a topographically diverse environment with many hills ranging from 800 feet above mean sea level to approximately 1,700 feet. There are also a number of major and minor canyons including Brea, Tonner, Sonome, Soquel and Telegraph. Many of the major and minor canyons located in both the City's corporate and sphere of influence boundaries contain United States Geological Survey (USGS) designated blue-line streams. A variety of native and non-native vegetation communities are contained in the City's sphere of influence and include chaparral, woodland, grassland, coastal sage scrub and riparian. Figure 6 shows the existing vegetation within the planning area.

Sensitive Biological Resources

Coastal Sage Scrub

Coastal sage scrub is a diverse and globally rare habitat type occurring in coastal terraces and foothills below 3,000 feet, interspersed with chamise chaparral, oak woodland, grasslands and salt marsh. This habitat type is characterized by low, aromatic and drought-deciduous shrublands of black sage (*Salvia mellifera*), white sage (*Salvia apiana*), California sage (*Artemesia californica*), California buckwheat (*Eriogonum fasciculatum*), bush sunflower (*Encelia californica*), toyon (*Heteromeles arbutifolia*), lemonade-berry (*Rhus integrifolia*), and a diverse assemblage of other shrubs, herbaceous plants, cacti and succulents. *Opuntia*, *Yucca* and *Dudleya* are some of the most common succulent genera, with the later represented by several locally endemic species.

Coastal sage scrub is a fire-adapted community with many species that re-sprout quickly from root crowns or rapidly germinate after burns. A number of plants lie dormant in the seed bank for decades, only germinating and flowering after periodic fires. Fire frequencies in coastal sage scrub habitats are estimated to have ranged between 20 and 40 years. Coastal sage scrub is primarily active during the cool, wet winters and largely sheds leaves during the dry summers. Coastal sage scrub plants are not tolerant to frost and are generally limited to areas which do not freeze. Fog is an important climatic factor for this plant community resulting in lower evaporation. Coastal sage scrub is sometimes referred to as soft chaparral since many of the dominant plants bend easily or have soft, flexible leaves. Many of the plants are drought-deciduous and strongly odoriferous.[1]

Within the City's corporate boundary, the remaining coastal sage scrub community is limited to a relative small linear patch located along the SR-57, extending from the City's northern boundary and south to approximately Mango Street. Moderate to large contiguous and non-contiguous patches of coastal sage scrub are located to the north and southwest of the city in the sphere of influence. Remaining coastal sage scrub is interspersed with annual grassland, chaparral, woodland and riparian habitat. Large contiguous blocks are found in Tonner, Sonome, Carbon and Telegraph Canyons.

Chaparral

Chaparral is the dominant plant community found in the mountains of Southern California and can generally be divided into lower and upper chaparral. Lower chaparral extends from about 1,000 to 5,000 feet while upper chaparral extends above 5,000 feet. Plants in the lower chaparral are

[1] Information derived from in part from http://www.lalc.k12.ca.us/uclasp/local_habitats/habitats/Coastal_sage.html and http://www.nationalgeographic.com/wildworld/profiles/terrestrial/na/na1201.html

tolerant of frost but not snow and include bigpod ceanothus, hollyleaf redberry, chamise, chaparral whitethorn, hairyleaf Ceanothus, hoaryleaf Ceanothus, scrub oak, and wedgeleaf Ceanothus. Plants in the upper chaparral can tolerate snow and include bigberry manzanita, bigpod ceanothus, birchleaf mountain mahogany, chamise cupleaf Ceanothus red shank and scrub oak. Chaparral plants are capable of growing along steep slopes with thin, poor soils. Chaparral plant can also tolerate long periods without rain and are often evergreen. They are also referred to as *sclerophyllous*, since the leaves are often small and hard with waxy coatings or epidermal hairs. These features assist chaparral plants to reduce water loss and may assist in reducing temperature. The root system of chaparral plants often includes two root systems; shallow roots that catch water as rain when it falls and tap roots. Chaparral plants are fire-adapted and some species require fire to persist. Plants are either re-sprouters or re-seeders (requiring fire to promote seed germination).[2]

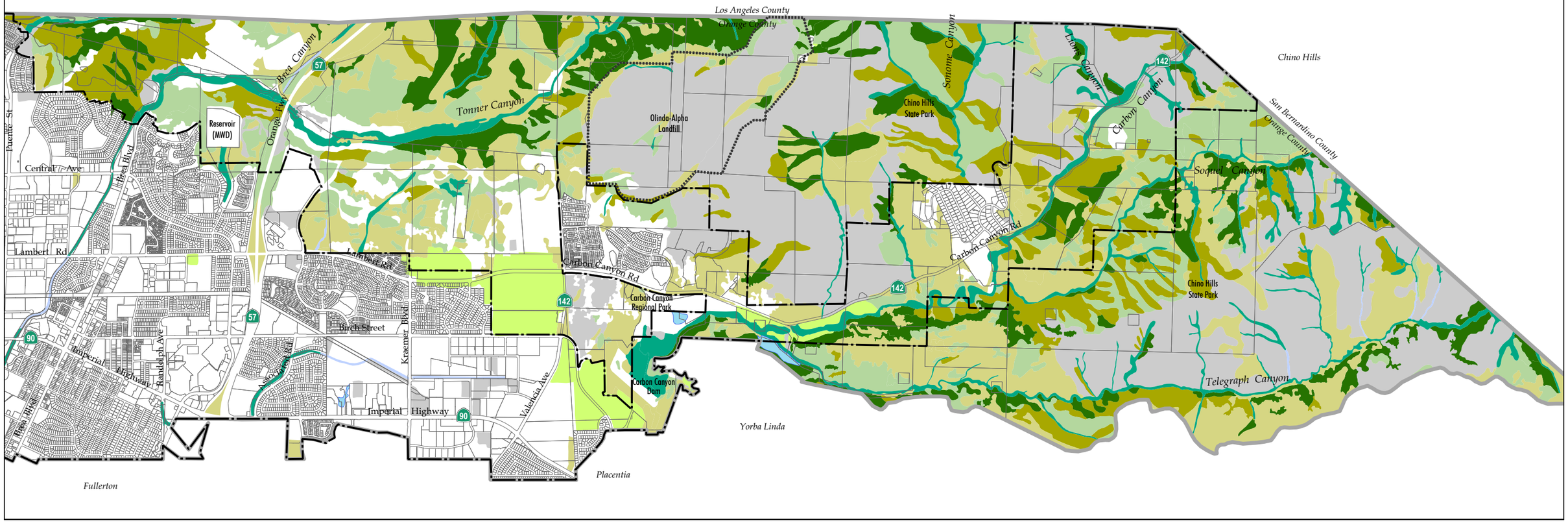
Chaparral found in the Planning Area is comprised of lower chaparral species, described above. As shown in Figure 6, no chaparral is contained within the corporate boundary. Small to large contiguous and non-contiguous patches of lower chaparral are contained in the sphere of influence areas. A large block of this vegetation community is located northwest of Brea Boulevard. Small patches of lower chaparral are contained in Tonner Canyon with larger more contiguous blocks found in Sonome, Carbon, Soquel, and Telegraph Canyons.

Coast live oak/Walnut woodland

Coast live oak (*Quercus agrifolia*) is a low, evergreen tree with a dense, hemispherical crown. Its trunk divides into either erect limbs, or more commonly, into crooked, wide-spreading limbs that sometimes trail long the ground. Coast live oaks commonly exceed 250 years of age. Coast live oak is unique among the California oaks in its ability to thrive along the coast. Proximity to the ocean provides a milder climate for coast live oaks, with warmer winters (seldom encountering frost or snow) and less sweltering summers than found inland. Fog is common, providing additional relief from heat and drought. Coast live oaks generally grow on well-drained soils of coastal plains and protected bluffs. Inland, it can be found at elevations up to 5,000 feet, with groves that spread across valleys, on steep hillsides, in rocky canyons, and along streams and intermittent watercourses.[3]

In many coast live oak woodland areas, the shrub layer is poorly developed but may include toyon (*Heteromeles arbutifolia*), walnut (*Juglans californica*), coffeeberry (*Rhamnus californica*), sugar bush (*Rhus ovata*), nightshade (*Solanum sp.*), poison oak (*Toxicodendron diversilobum*) and California bay (*Umbelluraria californica*). In many instance, the herb component is continuous and dominated by bromes and other introduced species.

[2] Ibid.
[3] Information derived from *Oaks of California*, B. Pavlik, P. Muick, S. Johnson and M. Popper, 1992 and *Wildflowers of the Santa Monica Mountains*, M. McAuley, 1996.



Sources: *City of Brea General Plan, 1997; Brea Highlands Specific Plan EIR, 2000; County of Orange.*

N
W E
S

- City Boundary
- Sphere of Influence
- Olinda-Alpha Landfill

Vegetation

- Disturbed Area
- Developed/Urban Area
- Chaparral Habitat
- Woodland Habitat
- Grassland Habitat
- Agriculture
- Scrub Habitat
- Riparian Habitat
- Vernal Pool, Seep and Wet Meadow
- Watercourse
- Lake, Reservoir and Basin

0 2,500 5,000 7,500 10,000 Feet

BREA GENERAL PLAN

Figure 6

Existing Vegetation

Southern California walnut (*Juglans californica*) is endemic to California. The current distribution of southern California walnut-dominated forest and woodlands is limited to the Santa Clarita River drainage in the vicinity of Sulpher Mountain, small stands in the Simi Hills and Santa Susana Mountains, the north slope of the Santa Monica Mountains, and the San Jose, Puente and Chino Hills. The best remaining stands are in the San Jose Hills. Outside of this range, southern California walnut occurs in Santa Barbara, western San Bernardino and northern San Diego Counties. It is conspicuously absent from the coastal foothills of the Santa Ana Mountains, San Diego County.[4]

Walnut woodland is similar to and intergrading with interior live oak or coast live oak woodland but with a more open tree canopy. The open tree canopy allows development of a grassy under-story. In most sites, this under-story is comprised of introduced winter-active that complete most of their growth cycle before the deciduous walnuts leaf out in spring.

Woodland habitat (i.e., coast live oak and walnut) within Brea is concentrated along the south side of Carbon Canyon and forms relatively large contiguous blocks. This vegetation community is also found in various concentrations throughout the sphere of influence. Small to moderate size blocks of this community are found northwest of Brea Boulevard along north-facing slopes and along the eastside of the SR-57 Freeway north of Tonner Canyon. Moderate to large contiguous blocks are found along Tonner, Carbon, Sonome, Soquel, and Telegraph Canyons.

Southern arroyo woodland usually has high vegetation density and diversity, and correspondingly high wildlife habitat values. A southern arroyo willow woodland community is located along the banks of Tonner Creek. This community is dominated by mature arroyo willows (Salix lasiolepis). East of SR-57, the community contains younger saplings among the larger willow trees. Black willow (Salix gooddingii), western sycamore (Platanus racemosa), and coast live oak (Quercus agrivolia) are also present. The understory consists of species such as mule fat, poison oak, stinging nettle, and mugwort. Occasional non-native ornamental trees, including Peruvian peppertree and eucalyptus, are also found scattered throughout this community.

Grassland/Disturbed

Grasslands in Southern California historically occur in the deep soils of the larger valleys and coastal plains. These are prime development areas so most native grasses have been largely eliminated from these areas. The remaining grasslands are usually found in steeper, more rocky or remote parts of Southern California. In general, grasslands throughout most of California are comprised of non-native introduced grasses from Europe and central Asia that include slender wild oats (*Avena barbata*), wild oats (*Avena fatua*), and other such species. In areas that are undisturbed, native grasses may still be present and can form the dominant plant community. In these areas, native grass species may include genera such as needle grass (*Nasella, Stipa*, etc.), melic (*Melica*) junegrass (*Koeleria*) and muhly (*Muhlenbergia*).[5]

Disturbed areas are those areas that have generally been altered by man-made/induced mechanisms such as agriculture, livestock grazing and other habitat altering means and most often exhibit high levels of non-native species. These areas also exhibit varying degrees of disturbance

[4] Information derived from http://www.fs.fed.us/database/feis/plants/tree/jugcal/distribution_and_occurrence.html and http://www.biogeog.ucsb.edu/projects/gap/data/cnddb/71210.html

[5] Information derived from *Grasses in California*, B. Crampton, 1974.

and may in some instances revert back to their natural state. More often than not however, non-native species form the dominant plant or vegetation community. For instance, areas that were previously utilized for livestock grazing may now exhibit various stages of recovery of coastal sage scrub species (i.e., California buckwheat, California sage brush, etc.).

Grassland habitat covers extensive portions of the city and is principally located along the north side of Carbon Canyon Road. This vegetation community also covers large portions of the sphere of influence, with large contiguous blocks located within all major canyons including Brea, Tonner, Sonome, Carbon, Soquel, and Telegraph.

Large areas of disturbed land in various stages of recovery are contained within the entire Planning Area. Large blocks of disturbed lands are located north of Carbon Canyon Road, while smaller blocks are located to the south in the vicinity of the Orange and San Bernardino County boundaries.

Carbon Canyon forms the principal riparian area contained within Brea. Portions of Lions and Soquel Canyon also contain riparian communities. Extensive, well-developed riparian communities are located in Tonner, Sonome, Soquel, and Telegraph Canyons.

Of the six vegetation communities identified within the planning area, four are considered sensitive by various resource agencies and include coastal sage scrub, walnut woodland, riparian, and wetland. Additionally, the plant species listed in Table 11 occur or have the potential to occur in the in the planning area based on a literature review and information contained in the California Natural Diversity Data Base (CNDDB).

Reptiles and Amphibians

Studies prepared for the Puente-Chino Hills area and a literature review and query of the CNDDB indicate that many of the habitat requirements for common and sensitive reptile and amphibian species are contained in the planning area or are known to occur (Biological Assessment of the Proposed Puente Hills Significant Ecological Area, 2000). The results of the database search are contained in Table 12.

Table 11
Sensitive Vascular Plants Known to Occur or Potentially Occur

Scientific Name	Common Name	Agency Listing	CNPS Listing Status	Habitat
Abronia villosa var. aurita	Chaparral sand verbena	None	1B	
Astragalus brautonii	Braunton's milk-vetch	FE	1B	Sage scrub, chaparral, foothill grassland, closed cone coniferous forest; limestone endemic, carbonate soils, recent burns and disturbed areas.
Atriplex coulteri	Coulter's saltbush	None	1B	
Brickellia nevinii	Nevin's bricklebush	None	4	Chaparral, coastal sage scrub; steep slopes.
Brodiaea filifolia	Thread-leaved brodiaea	FSC, SE	1B	Sage scrub, valley/foothill grassland, cismontane woodland; vernal pools (clay soils)
Calochortus catalinae	Catalina mariposa lily	None	4	Openings in chaparral, valley and foothill grassland, cismontane woodland; heavy soils.
Calochortus clavatus var. gracilis	Slender mariposa lily	FSC	1B	Chaparral, especially in foothill canyons; generally found in shade.
Calochortus plummerae	Plummer's mariposa lily	FSC	1B	Sage scrub, valley and foothill grassland, yellow pine forest; dry, rocky or alluvial soil; to 4,800 feet.
Calochortus weedi var. intermedius	Intermediate mariposa lily	FSC	1B	Chaparral, coastal sage scrub, valley and foothill grasslands.
Calystegia peirsonii	Pierson's morning glory	FSC	4	Sage scrub, chenopod scrub, chaparral, cismontane woodland, lower montane coniferous forest, rocky slopes.
Caulanthus simulans	Payson's jewlflower	FSC	2	Burned areas, streambeds, rocky, steep slopes and other disturbed sites, below 6,500 feet.
Chorizanthe parryi var. Fernandina	San Fernando Valley spineflower	FC, SE	1B	Sandy soils in coastal sage scrub
Dodecahema leptocera	Slender-horned spineflower	SE	1B	Chaparral, coastal sage scrub, alluvial fan habitats

Table 11 (Con't.)
Sensitive Vascular Plants Known to Occur or Potentially Occur

Scientific Name	Common Name	Agency Listing	CNPS Listing Status	Habitat
Dudleya multicaulis	Many-stemmed dudleya	FSC	1B	Sage scrub, valley and foothill grassland; heavy clay soils or rock outcrops; below 2,000 feet.
Eriastrum densifolium ssp. sancorum	Santa Ana woolystar	FE, SE	1B	Chaparral, coastal safe scrub, and alluvial fan deposits.
Fremontodendron mexicanum	Mexican flannelbush	FE, SR	1B	Closed-cone coniferous forest, chaparral, cismontane woodland, creek or dry canyons, gabbro soils.
Harpagonella palmeri	Palmer's grapplinghook	FSC	2	Sage scrub; clay soils; below 2,500 feet.
Hemizonia pungens ssp. laevis	Smooth tarplant	None	1B	Shadscale scrub, alkali sink, valley grassland, riparian woodland, meadows and seeps
Juglans californica var. californica	Southern California black walnut	None	4	Sage scrub, chaparral, cismontane woodland; often in association with oaks/oak woodland; frequently found on steep hillsides with northern exposures; deep alluvial soils.
Lasthenia glabrata ssp. coulteri	Coulters goldfields	FSC	1B	Saline places; coastal salt marshes, playas, vernal pools in foothill/valley grassland.
Lepechinia cardiophylla	Heart-leaved pitcher sage	FSC	1B	Open areas (especially slopes) in chaparral, sage scrub, valley and foothill grasslands; vernal pools, topographic depressions; heavy clay soils; below 2,700 feet.
Lepidium virginicum var. robinsonii	Robinson's pepper grass	None	1B	Chaparral, coastal sage scrub.
Monardella hypoleuca ssp. lanata	Felt-leaved monardella	None	1B	Chaparral between 980 and 3,280 feet.
Muhlenbergia californica	California muhly	None	1B	Coastal sage, chaparral, lower montane coniferous forest, meadows near streams or seeps.

Table 11 (Con't.)
Sensitive Vascular Plants Known to Occur or Potentially Occur

Scientific Name	Common Name	Agency Listing	CNPS Listing Status	Habitat
Phacelia stellaris	Brand's phacelia	None	1B	Sage scrub, coastal dunes.
Ribes divaricatus var. parishii	Parish's gooseberry	FSC	1B	Willow thickets, coastal sage scrub, riparian woodland. Perennial shrub.
Romneya coulteri	Coulter's matilija poppy	None	4	Chaparral, coastal sage scrub
Scutellaria bolanderi ssp. austromontana	Southern skullcap	None	1B	Chaparral, cismontane woodland, lower montane coniferous forest.
Sidalcea neomexicana	Salt spring checkerbloom	None	2	Alkali playas, brackish marshes, chaparral, coastal sage scrub, lower montane coniferous forest, desert scrub.

Federal and State Agency Listings
FE Federally Listed as Endangered
FSC Federal Special Concern Species
SE State Listed as Endangered
SR State Rare

California Native Plant Society (CNPS) Listing
1B rare, threatened, or endangered throughout their range
2 Rare, threatened, or endangered in California, but more common in other states
4 Species of limited distrib. in Calif., but whose existence does not appear to be susceptible to threat.

Table 12
Sensitive Reptile and Amphibian Species Known to Occur or Potentially Occur

Scientific Name	Common Name	Agency Listing Status	Habitat
AMPHIBIANS			
Pelobatidae	**Spadefoot Toad Family**		
Scaphiopus hammondii	western spadefoot	FSC, CSC, SP	Prefers relatively open areas in lowland grasslands, chaparral, and pine-oak woodlands, areas of sandy of gravelly soil in alluvial fans, washes, and floodplains.
REPTILES			
Emydidae	**Box and Water Turtle Family**		
Clemmys marmorata pallida	southwestern pond turtle	FSC, CSC, SFP	Ponds, marshes, rivers, streams, irrigation ditches.
Iguanidae	**Iguanid Lizard Family**		
Phrynosoma coronatum blainvillei	San Diego coast horned lizard	FSC, CSC, SP	Valley-foothill hardwood, conifer, and riparian habitats, pine-cypress, juniper and annual grassland habitats below 6,000 feet, open country, especially sandy areas, washes, flood plains, and windblown deposits.
Phrynosoma coronatum frontale	California horned lizard	CSC, SP	Scrubland, grassland, coniferous forest, broad-leaf woodlands.
Teiidae	**Whiptail Lizard Family**		
Cnemidophorus tigris multiscutatus	coastal western whiptail	FSC	Arid and semi-arid desert to open woodlands, where vegetation is sparse.
Anniellidae	**Legless Lizard Family**		
Anniella pulchra pulchra	silvery legless lizard	CSC	Several habitats but especially in coastal dune, valley-foothill, chaparral, and coastal scrub habitats.
Boidae	**Boa Family**		
Charina bottae umbratica	Southern rubber boa	FSC, ST, SP	Grassland, broken chaparral, woodland and forest, under rock bark of dead trees.
Colubridae	**Colubrid Snake Family**		
Diadiphis punctatus similis	San Diego ringneck snake	CSC, SP	Riparian woodlands, mixed chaparral, and annual grass habitats.
Lampropeltis zonata pulchra	San Diego mountain kingsnake	FSC, CSC, SP	Moist woods, coniferous forests, woodland and chaparral.

Table 12 (Con't.)
Sensitive Reptile and Amphibian Species Known to Occur or Potentially Occur

Scientific Name	Common Name	Agency Listing Status	Habitat
Salvador hexalepis virgultea	coast patch-nosed snake	FSC, CSC	Coastal chaparral, desert scrub, washes, sandy flats, and rocky areas. Barren creosote bush desert flats. Sagebrush semi-deserts; sea level to 7,000 feet.
Viperidae	**Viper Snake Family**		
Crotalus rubber rubber	northern red-diamond rattlesnake	FSC, CSC	Chaparral, woodland, and arid desert habitats in rocky areas with dense vegetation.

FSC Federal Special Concern Species
ST State Listed as Threatened
SP State Protected
SFP State Fully Protected
CSC California Special Concern Species

The coast patch-nosed snake is found from southeastern San Luis Obispo County and southern Kern County through coastal counties south into Baja California in coastal scrub and mixed chaparral. The coast patch-nosed snake may occur in the planning area.

The northern red-diamond rattlesnake occurs in coastal sage scrub, chaparral, and woodlands from eastern Orange County and western Riverside County south into Baja California in coastal sage scrub, chaparral, and woodlands with dense cover with rocky outcrops. The northern red-diamond rattlesnake may occur in the planning area.

The southwestern pond turtle is found along the Southern California coast inland to the Mojave Desert in woodlands, grasslands, open forests, and aquatic habitats such as ponds, marshes or streams with rock or muddy bottoms. Tonner Creek provides suitable habitat for the southwestern pond turtle. During focused surveys for the Tonner Hills Planned Community EIR, several pond turtle were found in Tonner Creek.

Birds

Species diversity in the Puente-Chino Hills is considered to be high due to a variety of factors including the availability of year-round water resources and perching and nesting habitat. The availability of these resources results in relative abundant usage of this area by year-round residents, seasonal residents and migrating songbirds. A number of common and sensitive species are known to occur in the Puente-Chino Hills area. Brea may be utilized by many of these species. Table 13 lists the sensitive species known to occur or have the potential to occur in Brea based on a search of the CNDDB database.

Table 13
Sensitive Bird Species Known to Occur or Potentially Occur

Scientific Name	Common Name	Agency Listing Status	Habitat
BIRDS			
Accipitridae	**Hawks, Kites, Harriers and Eagle Family**		
Accipiter cooperi	Cooper's hawk	CSC	Open woodlands especially riparian woodland.
Accipiter Striatus	sharp-shinned hawk	CSC	Woodlands; forages over chaparral and other scrublands; prefers riparian habitats and north-facing slopes, with plucking perch sites.
Aquila chrysaetos	golden eagle	CSC, SFP	Mountains, deserts, and open country; prefer to forage over grasslands, deserts, savannahs and early successional stages of forest and shrub habitats.
Buteo lagopus	rough-legged hawk		Meadows, marshes, riparian edges, riparian habitats, and lakes.
Buteo regalis	ferruginous hawk	CSC	Rivers, lakes, and coasts; open tracts of sparse shrubs and grasslands, and agricultural areas during winter.
Buteo swainsoni	Swainson's hawk	ST	Plains, ranges, open hills, sparse trees.
Circus cyaneus	northern harrier	CSC	Coastal salt marshes, freshwater marshes, grasslands, and agricultural fields; occasionally forages over open desert and brushlands.
Elanus leucurus	white-tailed kite	SFP	Grasslands with scattered trees, near marshes, along highways.
Falconidae	**Falcon Family**		
Falco columbarius	merlin	CSC	Coastlines, wetlands, woodlands, agricultural fields, and grasslands.
Falco mexicanus	prairie falcon	CSC	Grasslands, savannahs, rangeland, agricultural fields, and desert scrub; often uses sheltered cliff ledges for cover.

Table 13 (Con't.)
Sensitive Bird Species Known to Occur or Potentially

Scientific Name	Common Name	Agency Listing Status	Habitat
Laridae	**Gulls and Tern Family**		
Larus californicus	California gull	CSC	Seacoasts, lakes, farms, and urban centers.
Cuculidae	**Cuckoos & Roadrunner Family**		
Coccyzus americanus occidentalis	western yellow-billed cuckoo	SE	Riverine woodlands, thickets, and farms.
Strigidae	**True Owl Family**		
Asio flammeus	short-eared owl	CSC	Prairies, marshes (fresh and salt) dunes, tundra.
Asio otus	long-eared owl	CSC	Riparian and live oak woodlands
Athene cunicularia	burrowing owl	FSC, CSC	Dry grasslands, desert habitats, and open pinyon-juniper and ponderosa pine woodlands below 5,300 feet elevation. Prefers berms, ditches, and grasslands adjacent to rivers, agricultural, and scrub areas.
Apodidae	**Swift Family**		
Chaetura vauxi	Vaux's swift	CSC	Redwood and Douglas fir habitats.
Tyrannidae	**Tyrant Flycatcher Family**		
Empidonax trallii	willow flycatcher	SE	Wet meadow and montane riparian habitats, river valleys and large mountain meadows.
Empidonax traillii extimus	southwestern willow flycatcher	FE	Low elevation sites: Riparian woodlands that contain water and low growing willow thickets. High elevation sites: Large, flat, wet meadows that contain patches of willow trees.
Alaudidae	**Lark Family**		
Eremophila alpestris actia	California horned lark	CSC	Open habitats, grasslands along the coast, deserts near sea level to alpine dwarf shrub habitat, uncommonly in coniferous and chaparral habitats.
Hirundinidae	**Swallow Family**		
Progne subis	purple martin	CSC	Towns, farms, open or semi-open country.

Table 13 (Con't.)
Sensitive Bird Species Known to Occur or Potentially

Scientific Name	Common Name	Agency Listing Status	Habitat
Troglodytidae	**Wren Family**		
Campylorhynchus brunneicapillus couesi	coastal cactus wren	CSC	Coastal sage scrub, vegetation with thickets of prickly pear or cholla cactus.
Muscicapidae	**Kinglets, Gnatcatchers, Thurshes, and Babbler Family**		
Polioptila californica californica	California gnatcatcher	FT, CSC	Coastal sage scrub vegetation below 1,000 feet along the coastal slope; general avoids steep slopes and dense vegetation for nesting.
Laniidae	**Shrike Family**		
Lanius ludovicianus	Loggerhead shrike	FSC, CSC	Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches.
Vireonidae	**Vireo Family**		
Vireo bellii pusillus	least Bell's vireo	FE, SE	Perennial and intermittent streams with low, dense riparian scrub and riparian woodland habitats below 2,000 feet elevation; nests primarily in willows and forages in the riparian and occasionally in adjoining upland habitats. Associated with willow, cottonwood, and mule fat.
Emberizidae	**Wood Warblers, Tanagers, Buntings, and Blackbird Family**		
Aimophila ruficeps canescens	Southern California (ashy) rufous-crowned sparrow	FSC, CSC	Generally, steep, rocky areas within coastal sage scrub and chaparral, often with scattered bunches of grass; prefers relatively recently burned areas.
Amphispiza belli	Bell's sparrow	FSC, CSC	Dense, dry chamise chaparral and coastal slopes of coastal sage scrub.
Dendroica petechia brewsteri	yellow warbler	CSC	Ripirian woodlands, montane chaparral, and mixed conifer habitats.
Icteria virens	yellow-breasted chat	CSC	Riparian woodlands with a thick understory.

FE Federally Listed as Endangered
FSC Federal Special Concern Species
SE State Listed as Endangered
ST State Listed as Threatened
SFP State Fully Protected
CSC California Special Concern Species

The California gnatcatcher is a federally listed threatened species and is a species of concern in California. California buckwheat, California sagebrush, and sage typically dominate gnatcatcher habitat. The planning area contains previously designated critical habitat for the California gnatcatcher as determined by USFWS. The biological survey for the Tonner Hills Planned Community EIR indicates the presence of up to 18 breeding pairs of gnatcatchers on the Tonner Hills project site. Two additional gnatcatcher pairs were observed or detected west of SR-57. All pairs were associated with coastal sage scrub or mixed sage scrub, which occurs throughout the planning area. The Cooper's hawk and coastal cactus wren were also observed. Cactus wrens were observed in mature stands of cactus, in isolated small patches of cactus, and in coastal sage scrub. Cactus patches generally occur in most of the coastal sage scrub areas throughout Brea. The least Bell's vireo is listed as an endangered species by State and federal agencies. They are a small migratory songbird present in Southern California only during late spring and early summer for breeding and nesting.

Mammals

Studies performed for the Chino-Puente Hills indicate that this area has a relatively stable large mammal population, unlike many hillside urbanized areas of the Los Angeles Basin. The diversity of species is largely attributed to the availability of large tracts of open space, connectivity to the Santa Ana Mountains to the east and suitable habitat. A number of both common and sensitive species are known to occur in Brea, including those listed in Table 14.

Table 14
Sensitive Mammal Species Known to Occur or Potentially Occur

Scientific Name	Common Name	Agency Listing Status	Habitat
MAMMALS			
Vespertilionidae	**Evening Bat Family**		
Antrozous pallidus	pallid bat	CSC	Nests in dry, rocky habitats/caves, crevices in rocks, arid habitats including deserts, chaparral, and scrublands.
Corynorhinus (Plecotus) townsendii pallescens	pale big-eared bat	CSC	Needs caves, tunnels, or other structures for roosting, vegetation and mesic edges for feeding, extremely sensitive to roosting site disturbance, maternity roosts are in warm places.
Corynorhinus (Plecotus) townsendii townsendii	Townsend's big-eared bat	FSC, CSC	Caves, mine tunnels, and buildings.

Table 14 (Con't.)
Sensitive Mammal Species Known to Occur or Potentially Occur

Scientific Name	Common Name	Agency Listing Status	Habitat
Molossidae	**Free-Tailed Bat Family**		
Eumops perotis californicus	western mastiff bat	FSC, CSC	Primarily arid lowlands, especially deserts. Open, semi-arid to arid habitats including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban.
Leporidae	**Hares and Rabbit Family**		
Lepus californicus bennettii	San Diego black-tailed jackrabbit	FSC, CSC	Open brushlands and scrub habitats between sea level and 4,000 feet elevation.
Heteromyidae	**Pocket Mice and Kangaroo Rat Family**		
Chaetodipus fallax	San Diego pocket mouse	FSC, CSC	Sandy herbaceous areas, usually in association with rocks or coarse gravel, sagebrush, scrub, annual grassland, chaparral and desert scrubs.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	FSC, CSC	Coastal sage scrub, and grasslands, desert cactus, creosote bush and sagebrush habitats.
Muridae	**Mice, Rats, and Vole Family**		
Neotoma lepida intermedia	San Diego desert woodrat	FSC, CSC	Chaparral, coastal sage scrub, and pinyon-juniper woodland.
Onychomys torridus ramona	southern grasshopper mouse	FSC, CSC	Grasslands, desert areas, especially scrub with friable soils.
Procyonidae	**Raccoon Family**		
Bassariscus astutus	ringtail cat	SFP	Mixture of forest and shrublands in close association with rocky areas or riparian habitats.

FSC Federal Special Concern Species
SFP State Fully Protected
CSC California Special Concern Species

Insects

Southern California is known to contain some 3,000 to 4,000 insects inhabiting both natural and urbanized areas. In fact, many of the most species rich insect areas are found in the hilly and mountainous areas (largely a result of lack of disturbance by humans) of the region (Insects of the

Los Angeles Basin, 1993). The size and diversity of habitats found in the Puente-Chino Hills area are expected to contain a diverse assemblage of invertebrate species.

A survey conducted in 2001 for the Tonner Hills Planned Community EIR observed 13 butterfly species. The common white (*pontia protodice*), cabbage white (*Artogeia rapae*), Sara orangetip (*Anthocharis sara*), and acmon blue (*Icaricia acmon*) were the most numerous butterfly species observed at the Tonner Hills site.

Wildlife Movement Corridors

The Puente-Chino Hills areas serve as an important wildlife corridor between the Santa Ana Mountains to the east and the San Gabriel Mountains to the north. This wildlife corridor generally extends from the SR-91 in Orange and Riverside counties to the Whittier Narrows reach of the San Gabriel River and north to the San Gabriel Mountains. The species diversity and richness of these areas has been well-documented in a number of studies including the County of Los Angeles' *Biological Assessment of the Proposed Puente Hills Significant Ecological Area* (2000), *Carnivore Abundance and Distribution Throughout the Puente-Chino Hills* (1999), and *Missing Linkages Report* (2000). These studies, in addition to biological data collected by various state and local agencies, indicate that the Puente-Chino Hills contain many sensitive species and represent a critical east-west and north-south wildlife movement corridor between the San Gabriel and Santa Ana Mountains. The Wildlife Corridor Conservation Authority (WCCA), a joint- powers authority (JPA) represented by city and agencies, was established to oversee the protection of this wildlife movement corridor. The mission of the WCCA is to provide for the proper planning, conservation, environmental protection and maintenance of the habitat and wildlife corridor between the Puente Hills in the west and the Chino Hills.

A wildlands-urban boundary immediately east of the Olinda Heights development serves as a north-south connection corridor for animals moving from Carbon, Sonome, Soquel, and Telegraph canyons to the south and Tonner Canyon to the north. This connection corridor is the shortest route between the lower section of Tonner Canyon and the lower section of Carbon and Telegraph canyons. Reports of large mammals crossing the site are documented, and this route is now considered to be very important.

Tonner Canyon is a primary wildlife corridor linking animal movement in the Puente-Chino Hills from one side of the SR-57 freeway to the other. It provides year-round water and cover for small and large mammals. Tonner Canyon spans three counties and is in a natural state from its origins near Chino Hills Parkway in San Bernardino County, as it passes into Los Angeles County and the Firestone Boy Scout reservation, and then enters Orange County. Tonner Canyon provides connectivity in the Puente-Chino Hills. Other wildlife movement corridors in Brea include Brea, Carbon, Sonome, Lions, Soquel, and Telegraph canyons. The 57 Freeway undercrossing in Tonner Canyon provides unrestricted access to adjacent open space.[6]

Wildlife also cross Carbon Canyon Road via two linkages on either side of Olinda Village. These linkages provide regional habitat connections between the northern and southern portions of the

[6] Haas, C. and K. Crooks. 1999. *Carnivore Abundance and Distribution Throughout the Puente-Chino Hills: Final Report*. Prepared for the Mountains Recreation and Conservation Authority and State of California Department of Transportation, District 8.

Puente-Chino Hills. These two areas serve as linkages between the major drainages to the south and east (Telegraph and Soquel canyons) and the north and west (Sonome and Tonner Canyons). These locations are important in their connectivity value to bobcats and mountain lions.[7]

Thresholds Used to Determine Level of Impact

A significant impact on biological resources will occur if the project will:

- Have a substantial effect, either directly or through habitat modification, on any species identified as candidate, sensitive, or special status species in a local or regional plans, policies, or regulations, or CDFG or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive species identified in local or regional plans, policies, regulations, or by CDFG or USFWS; and/or
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Environmental Impact

Sensitive Habitats and Species

Vegetation Communities

Sensitive vegetation communities in the planning area include coastal sage scrub, coast live oak/walnut woodland, riparian areas, and wetlands. In addition, as noted in Table 11, a number of sensitive plant species are known to occur or have the potential to occur in Brea. Implementation of the General Plan will not result in the direct removal of these sensitive vegetation communities because the General Plan does not infer direct development rights.

The General Plan will allow for the introduction of residential land uses into largely undisturbed areas. Such construction has the potential to have a significant impact on sensitive vegetation communities and individual plant species. The major impact will be the removal of sensitive vegetation communities and individual plant species for building pad development, building and roadway construction, and required fuel modification (i.e. brush clearance). Other potential impacts include continued increased incidence of fire due to human activity, trampling and increased erosion from roadways, the introduction of non-native weedy and insect species, and increased competition from non-native species. The collection of sensitive species may also increase as greater access is afforded to previously inaccessible areas through roadway development. At this time, the specific locations of such development are not known at this time. Thus, impacts to sensitive vegetation communities are considered significant.

[7] Ibid.

Sensitive Species

As noted in Tables 12, 13, and 14, a number of sensitive animal species are known to occur or have the potential to occur in the planning area. Land within Brea has high wildlife diversity and an abundant wildlife population. In addition, the area provides important foraging, dispersal, migratory, and wildlife corridors for many sensitive species. Implementation of the General Plan will result in both direct and indirect significant adverse impacts to wildlife occurring in the Puente-Chino Hills area.

The introduction of residential land uses into large undistributed areas will result in the elimination of habitat and food resources through the removal of vegetation communities. Species that are more mobile (e.g., birds, small mammals, etc.) will seek adjacent habitat for cover and food resources. However, competition amongst individual species for these adjacent resources will increase the dispersal of weaker or more juvenile individuals; increased mortality due to predation and lack of resources will result. These effects may be particularly pronounced for species with low-tolerance for habitat modification or disturbances, especially some riparian bird species. Soil disturbance may significantly increase the presence of non-native species and may affect some species' ability to forage or establish territories. Modifications to on-site topography may increase the ability of some species to identify prey (e.g., raptor perches, etc.) or abnormally increase levels of predation.

To minimize the impacts to sensitive wildlife species and plant communities, the General Plan establishes goals and policies related to the protection of open space and wildlife habitat.

Goal CR-9 Preserve and maintain open space, natural habitat, and vegetation communities that support wildlife species and animals.

Policy CR-9.1 Support regional and sub-regional efforts to acquire, develop, operate, and maintain an open space system extending from the Puente Hills to the Chino Hills.

Policy CR-9.3 Preserve and restore the habitat value of creek corridors through the preservation of native plants and the replacement of invasive, non-native plants with native plants.

Policy CR-9.4 Protect sensitive plant species resources from the impacts of development.

Policy CR-9.5 Manage areas of diverse wildlife habitat as a natural resource and prevent major destruction or disruption.

Policy CR-9.6 Use specific management programs using sound ecological principles and professionally accepted methods are necessary to protect and restore sensitive animal populations and their habitats.

Goal CR-4 Preserve open space aggressively for diverse purposes – as a visual and scenic resource, for habitat conservation, to protect watersheds, and for recreation.

Policy CR-4.1 Protect and preserve open space wherever possible.

Policy CR-4.2 Select areas for open space preservation using an evaluation system that incorporates the following selection criteria: connectivity, access/recreations, sensitive areas, natural features, subdivision pattern, and buffer zones.

Policy CR-4.3 Work aggressively with the Orange County, Los Angeles County, State, and other appropriate public agencies, private entities, and landowners to conserve, protect, and enhance open spaces and natural resources, particularly within the sphere of influence.

Goal CR-5 Provide a flexible and balanced open space and conservation plan.

Policy CR-5.3 Develop and maintain strong relationships with local and regional environmental and conservation organizations.

The majority of impacts to sensitive vegetation communities and wildlife species will occur as a result of project-specific activities developed pursuant to the General Plan. At the time individual development applications are submitted, the City will assess development proposals for potential impacts to significant natural resources pursuant to CEQA and associated State and federal regulations. Appropriate mitigation will be required for all significant impacts if impact avoidance is not possible. In addition, the City will consult with WCCA to provide the proper planning, conservation, environmental protection, and maintenance of habitat and wildlife corridors, as well as investigate and create programs to manage wildlife habitat and natural resources using sound ecological principles and professionally accepted methods to protect and restore sensitive animal populations and their habitats and therefore preventing major disruptions or destruction. Implementation of these measures will reduce the impact to sensitive habitat and wildlife species to a less than significant level. Mitigation measures will be required at the project level to minimize the impacts of development.

Wildlife Movement Corridors

Portions of Puente-Chino Hills Wildlife Corridor are located within Brea. This wildlife movement corridor provides important east-west wildlife movement between the Puente-Chino Hills and the Santa Ana Mountains to the east. Most wildlife corridors contained in Brea are located along the major canyons such as Brea, Tonner, Carbon, Soquel and Telegraph canyons; minor canyons and ridgelines are also utilized. The use of these areas by wildlife is well documented as is their importance in providing physical and genetic linkages between species found in the San Gabriel and Santa Ana Mountains.

Telegraph Canyon, a major wildlife corridor contained in the Chino Hills State Park, will not be adversely affected by its General Plan designation of Natural Open Space. This area currently is protected by its status as park land.

In the Olinda Village and Carbon Canyon areas, the General Plan proposes Hillside Residential, Very Low Density Residential, Low Density Residential, Neighborhood Commercial, and Recreational Commercial designations, consistent with designations shown in the existing Carbon Canyon Specific Plan that applies to the area. The proximity of these land uses to the wildlife corridors will increase the urban-wildlife interface and the viability of the wildlife corridors and their

continued use by local and regional species. In addition, the increase in traffic volumes on Carbon Canyon Road could increase vehicle-wildlife collisions where wildlife cross Carbon Canyon Road at Olinda Village. To minimize the impacts to wildlife movement corridors, the General Plan establishes the following goals and policies:

Goal CR-8 Preserve and maintain wildlife and animal movement corridors.

Policy CR-8.1 Preserve key wildlife migration corridors and habitat areas.

Policy CR-8.2 Provide adequate wildlife crossings where roadways have severed habitat areas.

Policy CR-8.3 Cooperate with regional agencies and authorities with similar goals in protecting and enhancing wildlife and animal movement corridors.

Policy CR-8.4 Regular monitoring of medium and large mammals is necessary to gauge the effectiveness of wildlife corridors and to identify or increases in wildlife populations.

Action programs pursuant to the General Plan call for the City to require development proposals, particularly in sphere of influence and hillside areas, to preserve, restore, and enhance existing wildlife corridors, habitat, and roadway crossings. These requirements will be imposed at the time development proposals are received. The City will also require the assessment of potential migratory birds and raptor nests (in compliance with the Migratory Bird Treaty Act and the California Fish and Game Code) and mitigation measures to check for the presence of active nests prior to development. Consistent with current practices, the City will work with resource agencies, universities, and other groups that help monitor wildlife and determine effectiveness of wildlife corridors. Implementation of these measures will reduce the impact on wildlife movement to a less than significant level. Mitigation measures are required to minimize the impacts of development at the project level.

Mitigation Measures

To reduce localized impacts of development on biological resources, the following mitigation measures shall be required for projects within sensitive plant communities and wildlife corridors and/or for projects containing sensitive wildlife species:

1. Retention of rare communities shall be incorporated into building and project design to the maximum extent practical. Rare communities include oak, riparian and wetland, walnut woodland, and coastal sage scrub. If retention is not practical, healthy specimens shall be relocated and/or replaced.

2. Developers will be required to restore and re-vegetate where the loss of small and/or isolated habitat patches is proposed.

3. If construction activity is timed to occur during the nesting season (typically between March 1 and July 1), developers will be required to provide focused surveys for nesting birds

pursuant to California Department of Fish and Game requirements. Such surveys shall identify avoidance measures taken to protect active nests.

4. Removal of nonnative trees shall be permitted only outside the nesting season.

5. Any crushing of existing habitat during the breeding season of the gnatcatcher shall occur only under the supervision of a biological monitor.

6. Preserved and/or protected areas will be identified by the project biologist and isolated with construction fencing or similar materials prior to clearing or grading activities. Protected areas include existing woodland and coastal sage scrub adjacent to revegetation areas and individual trees and patches of native habitat to be preserved within revegetation areas.

7. Vehicles will not be allowed to operate within the drip line of preserved trees.

8. Erosion control measures, including silt fencing, shall be installed at the discretion of the project biologist to contain sediments within graded areas. Silt fencing shall be semi-permanently installed at the boundary between upland revegetation areas and existing riparian habitat until vegetation is sufficiently established in the revegetation zone to prevent erosion.

9. Construction equipment shall be restricted to designated areas and roads approved by the project biologist. Only low dispersal weight vehicles (less than 20 pounds per square inch) will be permitted to operate within riparian areas.

10. Maintenance and refueling of construction equipment shall be limited to areas specified by the project biologist. Storage of potentially hazardous materials, including but not limited to fuel, paint, stains, pesticides, herbicides, solvents, and oils, will not be permitted within 50 feet of any riparian zone. During construction, disposal of such materials shall be permitted only in controlled areas that are physically separated from potential stormwater runoff.

11. Lighting in residential areas and along roadways shall be designed to prevent artificial lighting from reflecting into adjacent natural areas.

Level of Impact after Mitigation

The General Plan includes goals, policies, and implementation measures to minimize impact on sensitive plant and animal species and wildlife movement corridors. No significant impact will result. Implementation of the required mitigation measures will reduce the potential project-level impacts in sensitive vegetation communities and wildlife corridors or in areas containing sensitive animal species to a less than significant level.

3.6 Aesthetics

This section examines whether implementation of the General Plan will impact aesthetic and visual resources in the project area or create new sources of light and glare.

Environmental Setting

Brea has a unique visual character, as it is bordered by the natural backdrop of the Puente and Chino Hills. These hills offer a variety of scenic resources including open space areas, ridgelines, creeks and riparian areas, scenic corridors and canyons, view corridors and vista points, scenic highways, and vegetation and natural landscaping. Vista points can be found throughout Brea either from urban areas with views of the hillsides or from wilderness areas via trails with vistas of Brea.

Long distance views of natural terrain and vegetation can be found from locations within Chino Hills State Park. The City's Hillside Development Ordinance emphasizes ridgeline and ridgetop protection to maintain viewsheds of the park. Pristine views of the hills from Telegraph Canyon and selected panoramic points have been mostly protected from urban encroachments. A viewpoint of particular interest is Gilman Peak (1,685 ft. elevation) located in Chino Hills State Park. Several of the main trails in Chino Hills State Park located within Brea's Planning Area provide spectacular views of Orange County and various hillsides nearby.

Brea Boulevard and Carbon Canyon Road wind through canyons with little or no development. These roads provide views of the natural landscape, hillsides, and valleys. Brea Canyon Boulevard leads the motorist on an historic drive into the City of Brea. Carbon Canyon Road is surrounded by canyon walls and natural landscaping as it follows the curving contours of Carbon Canyon and passes through Chino Hills State Park. The ridgelines from Sonome Canyon, Soquel Canyon, and Lions Canyon provide scenic view points of natural rolling hills with southern California black walnut and coast live oak trees on the north-facing slopes. Seasonal color transformations of vegetation throughout the year change from green during spring to golden brown during the summer. State Route 57 Freeway between SR-60 and Imperial Highway is eligible as a California State Scenic Highway but it is not currently designated as one. In addition, Carbon Canyon Road is designated on the Orange County Scenic Highways Plan as a viewscape corridor.

Thresholds Used to Determine Level of Impact

Implementation of the General Plan will result in a significant impact if it will:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of light or glare which would adversely affect day or nighttime views in the area.

Environmental Impact

General Plan policy encourages and facilitates infill development within Brea's urban areas to protect hillside scenic resources (among other objectives) to the maximum extent possible. Land use policy designates most of the sphere of influence area as Hillside Residential and allows development of single-family homes, with densities based on property characteristics, including slope, environmental hazards and resources, and performance criteria. The Community Development and Community Resources chapters include the following measures to protect scenic resources:

Goal CD-6 **Create an environment in Carbon Canyon that balances the community's long-term housing needs with community open space, habitat conservation, and public safety goals.**

Policy CD-6.1 Base allowable development on the ability of infrastructure, landforms, physical constraints, and emergency response capabilities to support new development.

Policy CD-6.3 Allow and encourage clustering of housing as a means of protecting resources.

Policy CD-6.4 Require that development preserve prominent landforms consistent with the City's hillside management ordinance.

Policy CD-6.7 Consider establishing a transfer of development rights (TDR) ordinance that would apply to Carbon Canyon as a means of preserving sensitive hillside area.s

Goal CD-7 **Minimize the extent of urban development in the hillsides, and mitigate any adverse consequences associated with urbanization.**

Policy CD-7.2 Base allowable development on the ability of infrastructure, landform, physical constraints, and emergency response capabilities to support new development.

Policy CD-7.7 Work closely with the County of Orange and emphasize the City's need to participate in the development review process of projects proposed in surrounding unincorporated areas. Work to ensure that such developments proceed consistent with City standards.

Goal CR-10 Pursue aggressively the preservation and protection of scenic resources.

Policy CR-10.1 Create and enforce special standards for development occurring within potential scenic highway corridors.

Policy CR-10.2 Identify streets with unique man-made or natural characteristics for special consideration as scenic routes.

Policy CR-10.3 Manage stands of mature trees, particularly native species, as unique and visual resources.

Policy CR-10.4 Preserve major rock outcroppings as unique landmarks and visual resources to the maximum extent possible.

Policy CR-10.5 Preserve stream courses in their natural state as they represent a recreation resource, provide community identity, and serve as unifying corridors in the planning area.

Policy CR-10.6 Work aggressively with Orange County, Los Angeles County, State, and other appropriate public agencies, private entities and landowners to conserve, protect, and enhance natural resources, particularly within the sphere of influence.

Implementation actions call for the City to revise the Hillside Development Ordinance[1] to ensure it reflects and implements these hillside protection policies. Individual development proposals will be required to comply with the above goals and policies and implementing actions. With stringent enforcement of objectives and programs, significant impact on scenic resources throughout the Planning Area as a whole can be avoided.

Light levels within Brea will not substantially increase with implementation of the General Plan since the city is largely urbanized. However, development in previously undeveloped areas has the potential to create new lighting impacts associated with the introduction of vehicle headlights and nighttime lighting. New structures could create glare effects if they incorporate reflective building materials. Depending upon the location and scope of development, impact could be significant at a localized level.

[1] Brea City Code Section 20.56.060 Hillside Development Standards.

Mitigation Measures

The following mitigation measure will be applied at the individual project level to avoid potential new light and glare effects.

1. For all development proposals, the City will examine potential light and glare effects associated with structures and on-site activities, and will ensure that features are incorporated into projects to avoid any adverse light and glare impacts.

Level of Impact after Mitigation

With mitigation, impact will be less than significant.

3.7 Cultural Resources

This section evaluates the potential effects on cultural resources associated with General Plan implementation. As indicated in the Initial Study (Appendix A), the project will result in a less than significant impact with regard to historic resources.

Environmental Setting

The current Brea city boundary was part of the large land holdings of the San Gabriel Mission established in 1771 by Franciscan Padres. The mission included land along the coast from Monterey to San Diego. When the mission system disbanded, Brea became part of the San Juan Cajon De Santa Ana Rancho. In 1863, thousands of acres of rancho lands, including Brea, were acquired by Abel Sterns, a Los Angeles businessman who later leased much of this land to sheepherders.[1]

Beneath the hills of Brea lies what was once one of the world's richest deposits of oil. Indians used the oil for medicine and early settlers used it as a source for fuel and to waterproof roofs.[2] During the late 1800s, there was substantial petroleum production north of the city in the Puente Hills and Brea Canyon. Originally sited where Carbon Canyon Regional Park lies, the first real village in Brea was called Olinda. Olinda initially served as an oil camp with structures built to serve the needs of the oil companies.[3]

The official founding date for the town of Brea is January 11, 1911; Brea was incorporated in 1917 with a population of 752. As a booming oil town, the city's population began to grow rapidly. Development of new housing, businesses, and civic buildings began to shape the current-day Brea. In 1918, the Pacific Electric Railway connected Brea to La Habra, Whittier, and other Los Angeles communities.

Following the oil boom, land in and around the city was changed from sheep ranches to orange groves. Post World War II, Brea experienced an increase in development. Many citrus groves were plowed under and the land was subdivided. Brea also saw major development in manufacturing and industrial businesses, particularly oil-related companies. In 1972, the 57 Freeway made agricultural and oil lands surrounding Brea accessible to more growth. Five years later, the Brea Mall opened, providing economic growth while supplying retail opportunities for Breans and the region.[4]

Archaeological Resources

The Puente and Carbon Canyon hills lie within an area considered by archaeologists and ethnologists to have been inhabited prehistorically by the Gabrieleno People. Gabrielenos were hunter-gatherers whose settlement pattern and mode of habitation consisted of occupying villages

[1] Cramer, Esther Ridgway. *Brea – The City of Oil, Oranges, and Opportunities.* 1992.
[2] Ibid.
[3] Ibid.
[4] *Brea – Yesterday, Today, Tomorrow.* 2001. Available at www.ci.brea.ca.us.

and seasonally dispersing to utilize local resources. Only a small portion of Brea has been surveyed for archaeological resources, so the full extent of archaeological resources occurring in Brea is not known.

Paleontological Resources

The bedrock in the Puente Hills is composed of later Miocene deposits called the Puente Formation. The Puente Formation is a fossiliferous deposit composed mostly of diatomaceous shales and possibly vertebrate fossil fauna. The Puente Formation is well documented to contain abundant fossil specimens including whales, porpoises, fish, sea lions, shark teeth, other bony fish, leaves, and marine invertebrates. In addition, significant vertebrate fossils, principally land mammals and birds, have been found in Quaternary (Pleistocene Ice Age and recent) terrestrial deposits throughout Orange County.

Thresholds Used to Determine Level of Impact

Implementation of the General Plan will have a significant effect on cultural resources if it will:

- Cause a substantial adverse change in the significance of an archaeological resource
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- Disturb any human remains, including those interred outside of formal cemeteries

Environmental Impact

Archaeologists and ethnologists consider the Puente and Carbon Canyon hills to have been inhabited prehistorically by Gabrielenos. Archaeological resources may be located in other parts of Brea. In addition, paleontological resources have been unearthed in the region. Adoption of the General Plan in itself will not directly affect any archeological or paleontological resources. However, long-term implementation of General Plan land use policy will allow development, particularly in the hills where vacant land is available and developments have already been proposed. Unknown archaeological sites, structures, and fossils may be unearthed during excavation and grading activities for specific projects. If previously undiscovered artifacts or remains are uncovered during excavation or construction, impact could be significant.

The General Plan does not contain any goals or policies that specifically address archeological and paleontological resources and their protection if they are encountered during any development activity. Review and protection are afforded by CEQA for those projects subject to discretionary action, particularly for archaeological resources. However, mitigation is recommended to ensure that the impact to previously undocumented resources can be avoided.

The one cemetery in Brea is designated Cemetery on the Land Use Policy Map. This designation preserves the current use of the site. No impact will result.

Mitigation Measures

The following mitigation measures will be implemented at the project level to minimize impacts on archaeological and paleontological resources.

1. City staff may require applicants for development permits to provide studies to document the presence/absence of archaeological and/or paleontological resources. Studies will be required in areas with documented or inferred resource presence. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified specialist.

2. All archaeological resources shall be subject to the provisions of CEQA (Public Resources Code Section 21083.2).

Level of Impact after Mitigation

Implementation of these mitigation measures will reduce the impact of development projects on cultural resources to a less than significant level.

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3.8 Geology/Soils

This section examines whether implementation of General Plan policy will expose people to hazardous geological or seismic conditions.[1]

Environmental Setting

Geology and Soils

Brea and its sphere of influence are located in the northeastern portion of the Los Angeles Basin, within the Peninsular Ranges province, at the base of the Puente and Chino Hills. The Peninsular Ranges province is characterized by northwest trending landforms and underlying geologic structures typical of the series of faults associated with the San Andreas fault system. During the last two to three million years, the Basin has undergone a complex process of folding and faulting as a result of the collision between the North American and Pacific tectonic plates. This portion of the Los Angeles Basin is underlain at great depth by Cretaceous igneous rocks of the Peninsular Ranges batholith. Marine sediment, which was deposited when the Basin was under water, overlies the basement rock.

The Brea area is underlain by two relatively weak semi-consolidated sedimentary bedrock in the hilly mountainous areas, and loose, unconsolidated, often saturated, alluvial sediments in the valleys and canyon bottoms. The sedimentary units in the Brea area are composed primarily of granular soils (silty sand, sand, and gravel), which contain a low to moderately low range for expansion potential. However, every sedimentary unit in the area contains lenses or layers of fine-grained soils (clays and silty clays) that are typically in the moderate to highly expansive range. The younger alluvial and possibly the older alluvial sediments contain strata that are susceptible to collapse. No regional subsidence as a result of either groundwater pumping or oil extraction has been reported in the Brea area.

Topographically, the city consists of a series of low hills in the south rising to ridges of moderate to steep relief in the central and northern section. Elevations in the city range from approximately 450 feet in the southern areas to 800 feet near the northeastern areas. Although existing landslides are not widespread in the area, many of the steeper hillsides do not meet the maximum factor of safety for slope stability. In addition, the California Geological Survey has identified most of the hillsides in Brea and its sphere of influence as a high mudslide risk zone.

Seismicity

Brea is located in one of the most seismically active areas in Southern California. Figure 6 illustrates the geologic and seismic hazards in Brea and its sphere of influence. Several active traces of the Whittier Fault pass through the city. California Geological Survey maps designate the fault zone as an Alquist-Priolo Earthquake Fault Zone. This designation, under State law, limits the types of

[1] The information presented in this section is drawn from the Brea General Plan Safety Element Technical Report prepared by Earth Consultants International, January, 2002.

construction and other activities that can occur within the fault zone. No major historical earthquakes have been attributed to the segment of the Whittier fault underlying the Planning Area. However, the fault is considered capable of producing a maximum credible earthquake of magnitude 6.8.

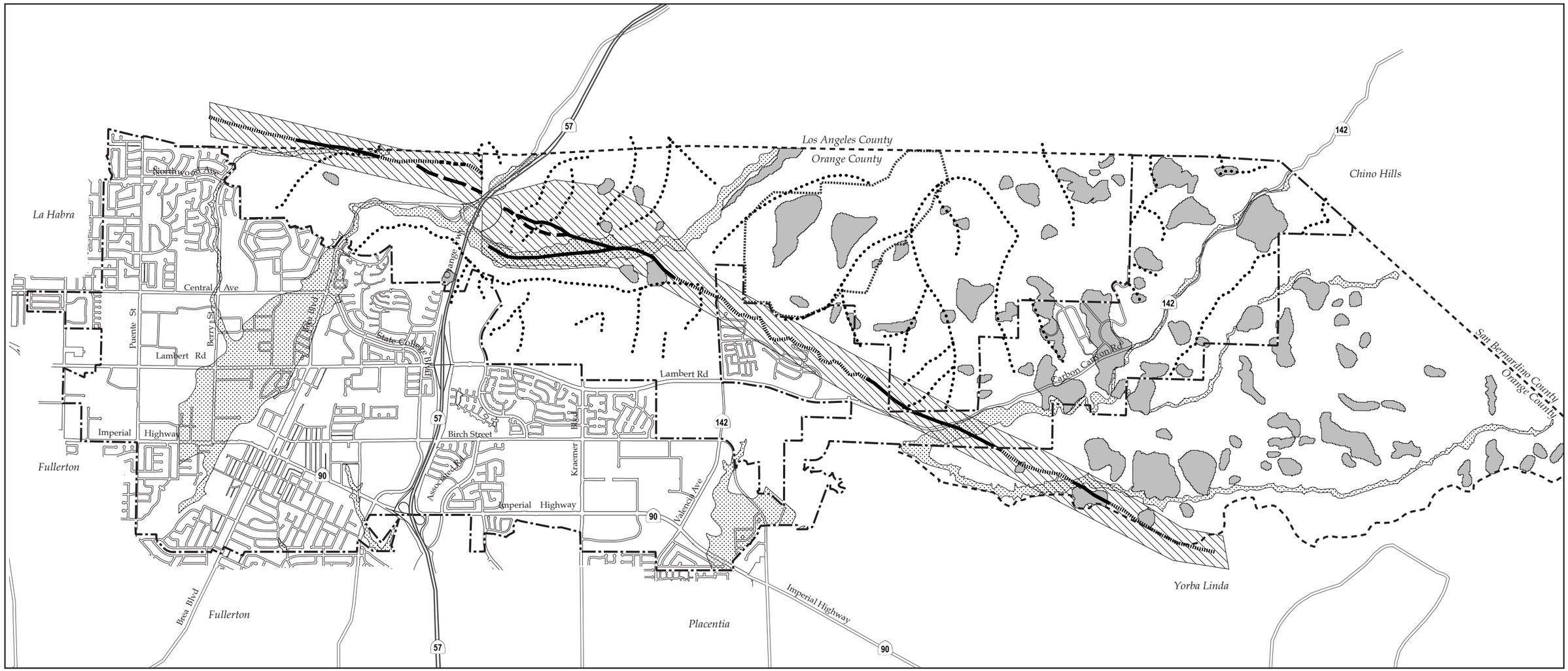
Other regional faults located in and around Brea include the Elysian Park thrust, San Jose, Elsinore, Chino, Sierra Madre-Cucamonga, and Newport-Inglewood. The city sits atop the Elysian Park thrust fault, located approximately 6 to 10 miles below the ground surface. This fault zone is thought to be responsible for the 1987 magnitude 6.0 Whittier Narrows earthquake. The closest point of the San Jose fault is located 7 miles from the city. The two Upland earthquakes (1988 and 1990) have been attributed to the San Jose fault. Glen Ivy North is the closest segment of the Elsinore fault. It is located 16 miles to the southeast. The Chino fault extends northward from the Puente Hills. The Chino fault is buried along most of its length and is presumed to have less seismic activity than the Whittier fault. The Sierra Madre fault zone includes several segments flanking the southern margin of the San Gabriel Mountains that are responsible for uplifting the mountains. Portions of this fault system are known to be active. The Newport-Inglewood fault has been associated with several historical earthquakes, and is considered one of the most seismically active structures in the Los Angeles Basin. The segment of the Newport-Inglewood fault system closest to the city is 17 miles away.

Geologic Hazards from Groundshaking

Liquefaction

Liquefaction typically occurs in loose, saturated sediments of primarily sandy composition, in the presence of ground accelerations. When liquefaction occurs, the sediments involved have a total or substantial loss of shear strength and behave like a liquid or semi-viscous substance. Three general conditions must be met for liquefaction to occur: (1) strong groundshaking of relatively long duration; (2) loose, or unconsolidated, recently deposited sediments consisting primarily of silty sand and sand; and (3) water saturated sediments within about 50 feet of the surface.

In accordance with the Seismic Hazard Mapping Act, the California Geological Survey has evaluated liquefaction susceptibility for the Brea area. The majority of the sphere of influence, particularly the hillsides, has been designated as an area where previous occurrence of landslide movement, or local topographic, geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements. Areas along floodplains and large drainages have generally been designated as areas where historic occurrences of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements.



Source: Earth Consultants Internation, January 2002; California Division of Mines and Geology, 1980, 1991, and 1998.

Legend

- City Boundary
- Sphere of Influence

Seismic Hazards

- Accurate Fault Location
- Approximate Fault Location
- Concealed Fault
- Inferred
- Alquist-Priolo Earthquake Fault Zone
- Liquefaction

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resource Code Section 2693c would be required

- Mapped Landslides
- Major Ridgelines

N W E S City of Brea General Plan

0 3,000 6,000 9,000 12,000 Feet

0 0.5 1 1.5 2 Miles

BREA GENERAL PLAN

Figure 7

Geologic and Seismic Hazards

Seismically Induced Settlement

Strong groundshaking may cause the densification of soils, resulting in local and regional settlement of the ground surface. During strong groundshaking, soil grains may become more tightly packed due to the collapse of voids or pore spaces, resulting in a reduction of the thickness of the soil column. This type of ground failure typically occurs in loose granular, cohesionless soils, and can occur in either wet or dry conditions.

Those portions of Brea that may be susceptible to seismically induced settlement are generally the floodplains and larger drainages that are underlain by late Quaternary alluvia sediments. These include areas in Tonner Canyon, Brea Canyon, and especially the flatter areas along these drainages west of Brea Boulevard. Also included are the areas along Telegraph and Carbon Canyons. Sites near the base of natural hills may be particularly vulnerable.

Landslides

Strong ground motions can worsen existing unstable slope conditions, particularly if coupled with saturated ground conditions. The most widespread type of landslide generally consists of shallow failures involving surficial soils. Rock falls and rockslides on very steep slopes are also common.

The area north of Brea and some steep slopes within the city are most vulnerable to seismically induced slope failure, due to the steep terrain and presence of weak sedimentary rock units. A few small landslides occurred in the Puente Hills during the Northridge earthquake. Areas on the southern, gentler slopes may also be susceptible where slopes have been undercut by streams or roadcuts.

Thresholds Used to Determine Level of Impact

Implementation of the General Plan will result in a significant impact if land use and other policies:

- Risk exposure of people or structures to potential substantial adverse effects involving strong seismic groundshaking or seismic-related ground failure, including landslides and liquefaction
- Lead to developments that create substantial soil erosion or loss of topsoil
- Place people or structures on a geologic unit or soil that is unstable and potentially results in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse
- Allow development on expansive soil

Environmental Impact

Seismic Groundshaking

Brea is located in a seismically active area. Projects developed pursuant to General Plan policies will expose additional people and structures to groundshaking hazards associated with earthquakes. Any groundshaking that will occur is expected to be similar throughout the Planning Area and is not considered an unusual or unique risk. Per City and State building codes, all new development will be required to incorporate appropriate design and construction measures to guard against groundshaking hazards. The Public Safety chapter includes the following goals and policies:

Goal PS-1 **Reduce the risk to the community from seismic activity and geologic conditions including ground shaking, fault rupture, liquefaction, and landslides.**

Policy PS-8.1 Minimize the potential damage to structures and loss of life that may result from an earthquake.

Policy PS-8.2 Require seismic safety standards for construction of all new buildings.

Policy PS-8.3 Continue to require geological and geotechnical investigations of all new developments in areas of potential seismic or geologic hazards as part of the environmental and development review process.

Because this is not an unusual risk and development projects pursuant to the General Plan will comply with all requisite State and local seismic safety standards, impact will be less than significant.

Seismic groundshaking has historically caused landslides, mudslides and liquefaction. General Plan implementation will result in development in the hillside areas. The hillsides are composed of weak semi-consolidated bedrock that historically has been susceptible to landslides and mudslides. Development in these areas will increase the number of persons and structures exposed to potential landslides and liquefaction during a seismic event.

All projects and structures will be constructed in compliance with existing seismic safety regulations of the California Uniform Building Code, which requires the use of specific engineering and construction standards identified for each class of seismic hazard. The City currently requires geological and geotechnical investigations of all new development in seismic and geologic hazard areas. The General Plan includes the following policy:

Policy PS-8.4 Require that careful, site-specific evaluations based on detailed surface and subsurface geotechnical studies be conducted in areas where landslides are suspected or known to occur.

Compliance with General Plan policies and existing regulations will ensure that impact will be less than significant, and no further mitigation is required.

Erosion

The General Plan will allow new construction on vacant land and undeveloped parcels, including property in hillside areas. During the construction phase of individual projects, grading and earthwork will be necessary to prepare sites for development. During the construction phase of individual development projects, exposed rock and soil may increase the chance of soil erosion, landslides, and mudslides if these surfaces are left unprotected during periods of high winds and rain.

The City currently has in place design guidelines and standards for development in hillside areas to minimize the adverse impacts of grading. Continued implementation of standard erosion control and engineering techniques during construction of individual projects will reduce the impact to a less than significant level, and no further mitigation is required.

Geology and Soils

Brea is underlain with weak semi-consolidated sedimentary bedrock and loose, unconsolidated and often saturated alluvial sediments. These soil types have the potential for liquefaction and collapse. The fine-grained components of the bedrock units are moderately to highly expansive. The weak soil combined with steep slopes also makes areas of Brea susceptible to landslides and mudflows.

The City currently requires geological and geotechnical investigations of all new development in seismic and geologic hazard areas. Policy PS-8.4 cited above indicates that this practice will continue. Impact will be less than significant, and no further mitigation beyond compliance with requisite standards is required.

Mitigation Measures

General Plan policy and current City development review practices adequately address geologic and seismic hazards and hazardous slope conditions. No mitigation is required.

Level of Impact after Mitigation

Impact will be less than significant.

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3.9 Hazards and Hazardous Materials

This section examines whether implementation of the General Plan will create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or expose people or structures to a significant risk of loss, injury or death involving wildland fires. The analysis in the Initial Study indicated that implementation of the General Plan will not impact airport safety and emergency response plans.

Hazardous Materials

Environmental Setting

Brea contains many industrial uses, oil production companies, and various facilities permitted to store, transport, and handle hazardous waste. Businesses that usually handle and generate small quantities of hazardous waste include dry cleaners, auto repair shops, medical facilities, and photo processing centers. Larger businesses, primarily in industrial locations, can generate large quantities of hazardous waste. Brea has 134 small quantity hazardous waste generators and 9 large quantity generators.

Eleven archive sites in Brea have been identified as Superfund sites under the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), including the Olinda-Alpha landfill. Other non-Superfund sites are primarily located in the western industrial section of the city. Archive status indicates that to the best of the EPA's knowledge, no immediate or long-term risks to human health or to the environment are associated with these sites. In addition, the EPA has identified 24 facilities in Brea listed on the Toxic Release Inventory. These sites are known to release toxic chemicals into the air; however, the EPA closely monitors the emissions to ensure that annual limits are not exceeded. The California Department of Toxic Substances Control lists all Leaking Underground Storage Tanks (LUST) identified throughout Brea. Fifty-nine LUST cases have been reported in Brea and the sphere of influence.

Brea has three oil fields in active production: Yorba Linda, East Coyote, and Brea-Olinda oil fields. Some fields produce natural gas as well as oil. The larger energy companies also manage associated oil and natural gas transport/processing facilities. Many of the oil wells have been closed and abandoned after many years of operation. Wells that are no longer producing must be abandoned to the satisfaction of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (CDOGGR). The abandonment process begins with the removal of surface equipment and the capping of the well. The upper 50 feet of the well is sealed with a final concrete plug and a metal plate is welded over the well annulus. CDOGGR inspects the

abandonment throughout each step of the process.[1] The Brea Fire Department is the lead regulatory authority within the City of Brea.

The Orange County Fire Authority (OCFA) has jurisdiction over the investigation, remediation, and mitigation of hazardous soil gas contamination in the County. OCFA's Guideline for Combustible Soil Gas Hazard Mitigation sets forth policy for the scientific investigation, remediation, and/or mitigation of potentially hazardous concentrations of combustible soil gases associated with the construction and occupancy of a building or structure. Crude oil is classified as a hazardous material because it is flammable and can burn. It can also produce flammable vapors that can flow with the wind and become ignited if they come in contact with an ignition source; the produced gas is mostly methane, which is the primary constituent of natural gas. CDOGGR has identified urban oil fields with a potential for hazardous gas accumulations that could result in explosions; the Brea-Olinda oil field is one of these sites. Highly explosive concentrations of methane are typically associated with oil and gas seepage zones.[2]

In addition to oil and gas seepage zones, boiling liquid vapor gas cloud explosions (BLEVE) are associated with natural gas plants and power generation turbines. A BLEVE can occur in a pressure vessel when there is significant external fire, failure of the pressure relief valves, vessel blockage, and no external firefighting efforts occurring simultaneously. At a distance of 1,237 feet from the blast overpressure zone, windows will break, and at a distance of 374 feet, eardrums can rupture and homes will be damaged.[3]

The City has adopted a comprehensive Emergency Response Plan and maintains an Emergency Operations Center at the Civic and Cultural Center. The program is coordinated by a full-time Emergency Preparedness Coordinator that is assigned to the Brea Fire Department. The Brea Fire Department, Suppression Division coordinates hazardous material and disaster preparedness planning and appropriate response efforts with City departments. The Fire Department is responsible for conducting compliance inspections for regulated facilities in the City. These facilities handle hazardous material, generate or treat a hazardous waste and/or operate an underground storage tank. The Orange County Fire Authority and the Brea Fire Department observe the 1997 version of the Uniform Fire Code for usage, storage, handling, and transportation requirements for hazardous materials.

Thresholds Used to Determine Level of Impact

Implementation of the General Plan will have a significant impact related to hazardous materials if it will:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

[1] *Tonner Hills Planned Community Draft Environmental Impact Report*. Prepared by Culbertson, Adams & Associates, Inc. under the direction of the County of Orange Planning Department. April 2002.
[2] Ibid.
[3] Ibid.

- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school

- Be located on a site which is included on a list of hazardous materials sites

Environmental Impact

The Public Safety chapter of the General Plan contains the following goals and policies to protect the community from hazards:

Goal PS-4 Protect the community from the hazards associated with the transportation, use, and storage of hazardous materials in the urban environment.

Policy PS-4.1 Ensure that hazardous materials used in businesses and industry are handled properly.

Policy PS-4.2 Reduce the risks associated with ground transportation hazards.

Policy PS-4.3 Work with responsible Federal, State, and County agencies to identify and regulate the disposal of toxic materials.

Policy PS-4.4 Provide education and information to City residents regarding the proper use and disposal of household hazardous materials.

Goal PS-5: Minimize the public's exposure to potential hazards associated with existing and abandoned oil facilities.

Policy PS-5.1 Work closely with responsible State and Federal agencies to ensure that active oil field operations comply with all current regulations and, once oil field operations cease, that appropriate closure and clean-up activities occur.

Policy PS-5.2 Continue to support the regulations of the California Division of Oil, Gas, and Geothermal Resources regarding abandoned oil facilities.

Policy PS-5.3 Require comprehensive investigation, disclosures, and remediation of any former oil field property proposed for an alternative use.

These policies and the programs adopted to implement them will provide a high degree of protection of persons and structures and reduce impacts to less than significant levels.

General Plan policy allows oil/natural gas industries and other industries that use, store, transport, or generate hazardous materials to locate within areas designated General Industrial and Light Industrial on the land use policy map. These designations will keep industrial activities separate from residential uses.

The long-existing extraction and ancillary operations in hillside areas are permitted to continue as "grandfathered" uses. Hazardous conditions associated with new oil and natural gas production will not increase with implementation of the General Plan because expansion of existing operations is not anticipated. Wherever alternative uses are proposed on or adjacent to former oil field

operations, the applicant/developer will be required to conduct extensive environmental analysis and provide mitigation to reduce impact to less than significant levels. One area of concern is the explosion of methane gases commonly found at high concentrations in oil and gas seepage zones. Given the potential for combustible gases to accumulate in or under buildings or structures, the OCFA has established guidelines for minimum procedures to mitigate the hazard posed by these gases. The objective of these guidelines is to prevent gases from accumulating to potentially hazardous concentrations. If combustible soil concentrations of 5,000 parts per million (ppm) or greater are identified at a given location, the OCFA mandates that mitigation measures be applied to all buildings within 300 feet of the affected locations. If combustible soil gas concentrations greater than 12,500 ppm are identified at a given location, all buildings within 300 feet of that location are required to have a specific oil gas mitigation plan.[4]

Furthermore, existing federal, State, and local regulations are already in place to provide a level of protection to current safety standards. Therefore, impact will be less than significant.

Mitigation Measures

The following or similar mitigation measures will be applied to any development project located within the blast zone of a natural gas plant or soil gas seepage zone:

1. No residential structures shall be constructed within 10 feet of an abandoned well or 100 feet of an operating well.

2. Prior to obtaining grading permits, a soil gas survey shall be conducted in accordance with the Orange County Fire Authority (OCFA) and the Brea Fire Department guidelines to determine whether or not there is methane and/or other combustible soil gases at concentrations of concern at the site. The survey shall evaluate the areas around the old, abandoned wells as well as any and all locations identified by the City's combustible soil gas consultant.

3. Samples shall also be collected at depth below final design grades as determined by a registered professional engineer with experience in the field of combustible soil gas control and mitigation systems. Said survey is subject to third party review by the City's combustible soil gas consultant. Mitigation measures will be required if methane gas at concentrations over 5,000 parts per million is detected at the site, in accordance with the guidelines established by OCFA and the City of Brea Fire Department, as appropriate.

4. Prior to obtaining grading permits, site development plans must comply with the Brea Fire Department's requirements and OCFA guidelines for the investigation, mitigation, and remediation of combustible soil gases. These requirements are outlines in the County Fire "Guidelines for Combustible Soil Gas Hazard Mitigation" and the City of Brea Fire Department "Combustible Soil Gas Mitigation System Installation and Inspection Requirements." In addition, if hydrocarbon concentrations in excess of 20,000 parts per million are left in place below 10 feet below grade surface, OCFA will require documentation that shows that the contamination will not create a methane gas problem.

[4] Ibid.

5. Mitigation measures regarding combustible soil gases shall be provided in accordance with City of Brea Fire Department's requirements and OCFA Guidelines. They may include but may not be limited to: sub-slab passive venting systems, sub-slab membranes, bottoms mitigation measures and venting of abandoned wells. This program shall be submitted to the Director or designee, Development Services Department, within 60 days of completion of grading for review/approval.

Level of Impact after Mitigation

Implementation of the above measure and continued compliance with existing federal, State, and local regulations will ensure a less than significant impact.

Wildland Fires

Environmental Setting

Figure 8 shows that a significant portion of Brea's sphere of influence remains undeveloped, consisting of rugged topography with highly flammable native vegetation. Wildland fires have occurred within Carbon Canyon and Chino Hills State Park in the past. Orange County has designated much of the hillsides Special Fire Protection Areas (SFPA) for wildland and urban interface fire risks. SFPA are geographic areas conducive to uncontrollable fires due to formidable fire conditions, such as topography, native vegetation, weather, and other relevant factors, and the interaction of development and vegetative habitat.

Threshold Used to Determine Level of Impact

The General Plan will have a significant impact if implementation of policies will expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

Environmental Impact

Development pursuant to General Plan land use policy will allow for increased development in the sphere of influence, most of which is considered at high risk for wildland fires. New development will create increased fire hazards because it will place residential units in the highly flammable open grasslands.

The construction of Fire Station 4, located at 170 North Olinda Place, is intended to enhance response times to fires in areas accessible directly via Carbon Canyon Road. During fire season, the number of personnel at the station is often increased to ensure adequate response. However, should development levels increase within Carbon Canyon or other hillside areas within or adjacent to high fire hazard zones, increased response capabilities will become necessary.

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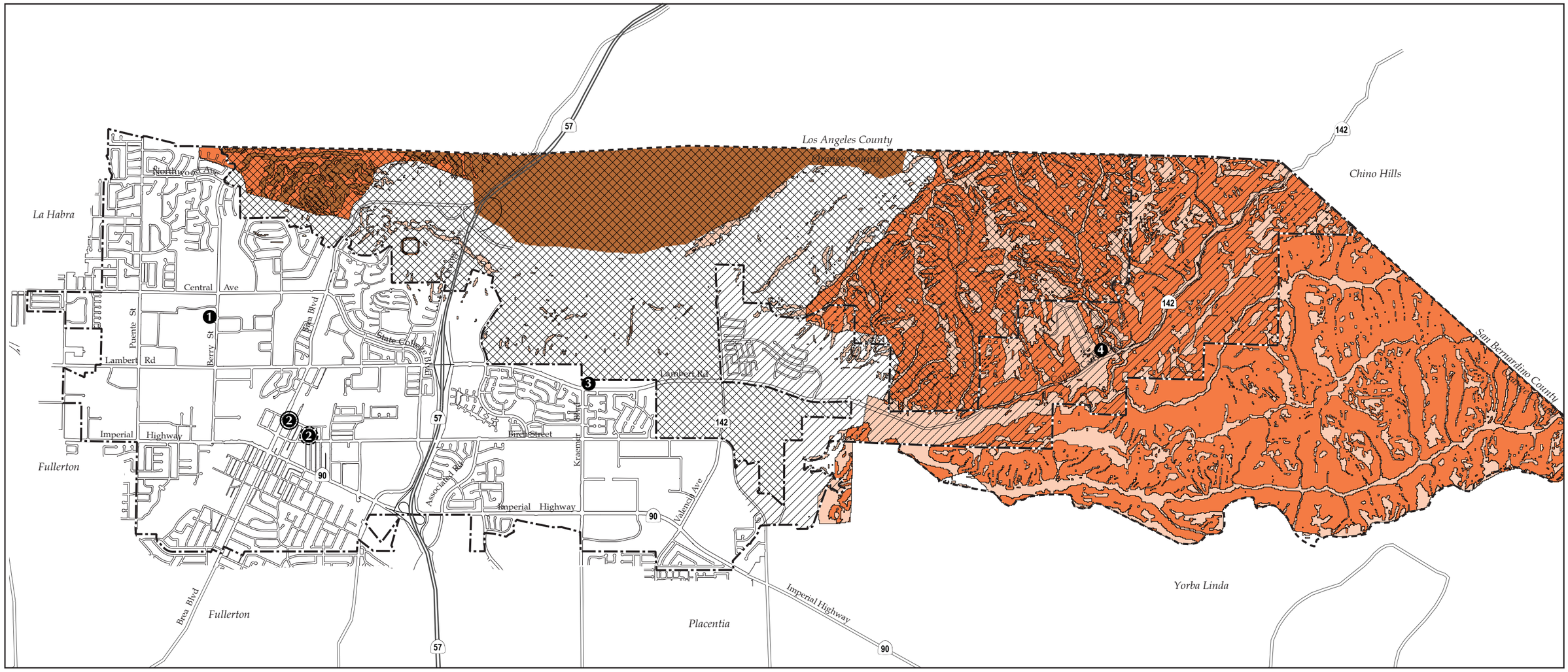
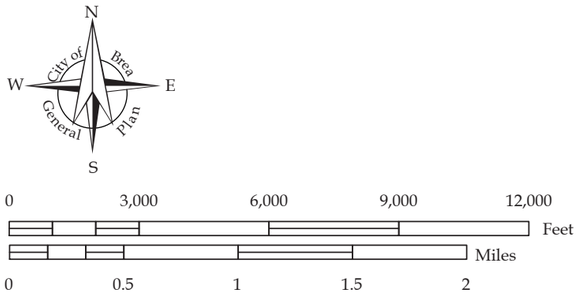


Source: Earth Consultants International, Inc., 2001; City of Brea Fire Department.



Legend

City Boundary

Sphere of Influence

High Fire HazardAreas (Designated by the City of Brea Fire Department)

Very High Fire Hazard Area (City of Brea)

Very High Fire Hazard Area (Sphere of Influence)

Fire Susceptibility Mapping

Very High Fire Area

High Fire Area

Moderate Fire Area

Low to Very Low Fire Areas

Fire Stations

1 Fire Stations

2 New Fire Station #2 (Underconstruction)

2 Temporary Facility (Station #2)

BREA GENERAL PLAN

Figure 8

Wildland Fire Hazard Areas

The General Plan contains goals and policies in the Public Safety chapter to minimize the risk of fire hazard:

Goal PS-6 Protect the community from wildland fires.

Policy PS-6.1 Consider implementing a vegetation management plan that considers non-traditional methods of controlling vegetation, such as prescribed burning, in undeveloped areas.

Policy PS-6.2 Encourage residents to plant and maintain fire-retardant slope cover to reduce the risk of brush fire in areas adjacent to the canyons, and develop and implement stringent site design and maintenance standards for areas with high fire potential.

Policy PS-6.3 Assure provision of adequate fire equipment access and fire suppression resources to all developed and open space areas.

Policy PS-6.4 Require new development to ensure that the City's 5-minute fire response time be maintained.

The City will continue to reduce the potential for dangerous fires by coordinating with the Orange County Fire Agency to implement fire hazard education, fire protection, and fuel modification programs. In addition, the City will work closely with the local water districts and the County to ensure that water pressure is adequate for fire fighting purposes. Development proposals within high fire hazard areas will be required to provide appropriate and adequate safeguards and response capabilities to prevent the loss of structures and to ensure that established development does not experience reduced service. New development may be required to fund new fire facilities or equipment toward this end. Implementation of these measures will reduce the potential impact of wildland fires to a less than significant level.

Mitigation Measures

Impact will be less than significant, and no mitigation is required.

Level of Impact after Mitigation

Impact will be less than significant.

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3.10 Hydrology

This section examines whether implementation of the General Plan will alter existing drainage patterns, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, place housing within a 100-year flood hazard area, or expose people or structures to flooding. Issues of water supply are addressed in Section 3.11-Utilities/Service Systems of this EIR. The Initial Study analysis indicated that water quality standards and inundation issues will not be significant.

Environmental Setting

The San Gabriel watershed is the primary drainage watershed for Brea and its sphere of influence. Drainage on the eastern edge of the Planning Area occurs via the Santa Ana River Watershed. Two primary creeks, Carbon Canyon and Coyote Creeks, provide significant drainage capacity for the area. Carbon Canyon Creek, located along the eastern edge of the city, drains southwardly into the Santa Ana River. Coyote Creek, located in the northwest corner of the city, drains southwestwardly away from developed areas of Brea.

Brea has a history of major flooding, but comprehensive storm drain improvements and the construction of Carbon Canyon Dam in 1961 have reduced the threat of floods. The unpredictable seasonal range in rainfall that is typical of coastal southern California, coupled with geographic and geologic conditions, makes Brea vulnerable to flooding during the winter storm season. The Planning Area is a tributary of several of the Orange County Flood Control District's (OCFCD) facilities, including: Brea Canyon Channel, Loftus Diversion Channel, Tonner Canyon Channel, and Carbon Canyon Channel.[1] The Orange County Flood Control District has constructed and maintains several improved flood control channels within Brea, most notably Brea Creek Channel west of and parallel to Brea Boulevard, and the Loftus Channel east of SR-57, below Birch Street.

The City participates in the National Flood Insurance Program. Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency, or FEMA, show potential flood zones for the 100-year and 500-year flood zones. Figure 8 shows the location of these flood zones, including channelized areas where the channel is capable of containing 100-year flood volumes. The area upstream from Carbon Canyon Dam, shown in Figure 9, is used as open space specifically designed and intended to accommodate flood waters.

[1] Timothy Neely, Manager of Environmental Planning Services Division, County of Orange. Letter to Karen Haluza, Senior Planner, City of Brea, dated July 3, 2002.

Thresholds Used to Determine Level of Impact

Implementation of the General Plan will result in a significant impact if General Plan policy will:

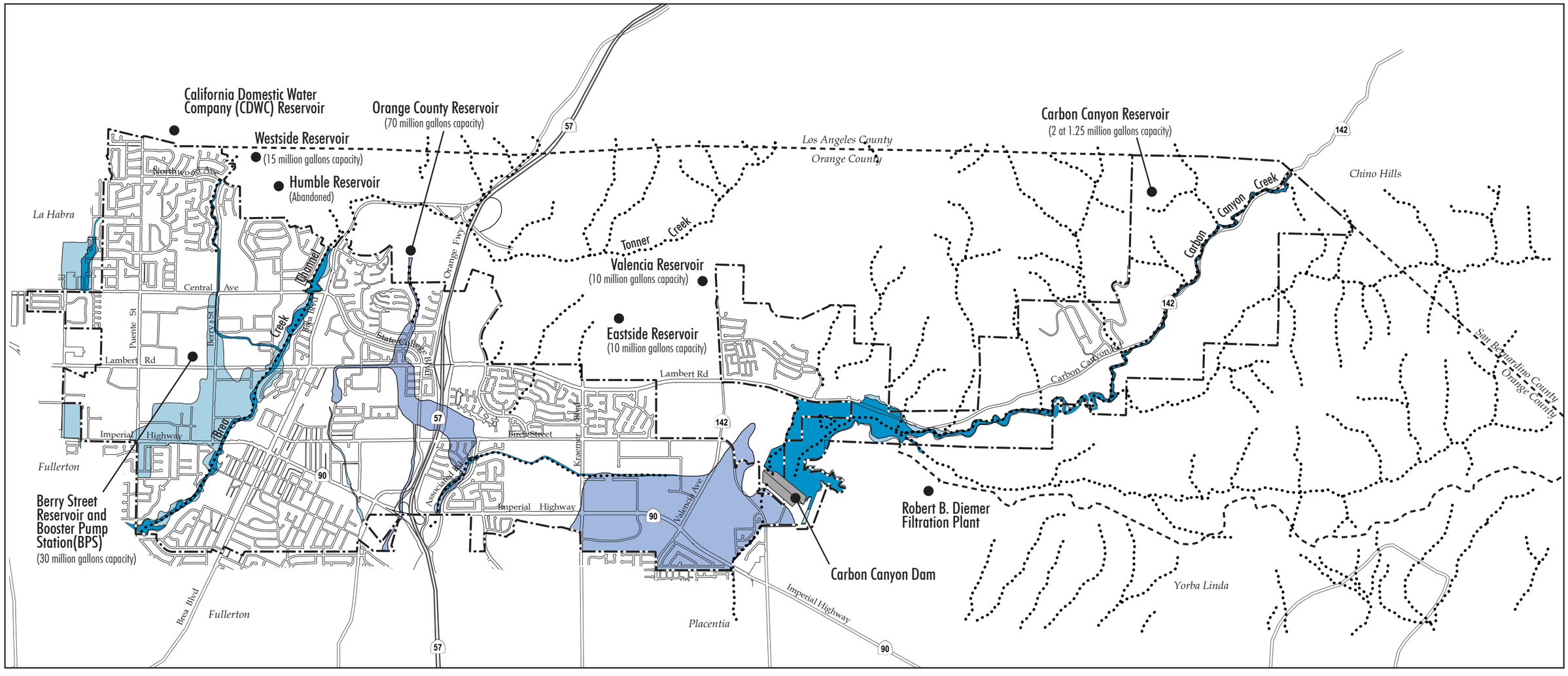
- Lead to substantial alteration of the existing drainage pattern in the area, including the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site, or increase the amount of surface runoff that would result in flooding on- or off-site
- Create or contribute to runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Expose people or structures to a significant risk of loss, injury, or death involving flooding

Environmental Impact

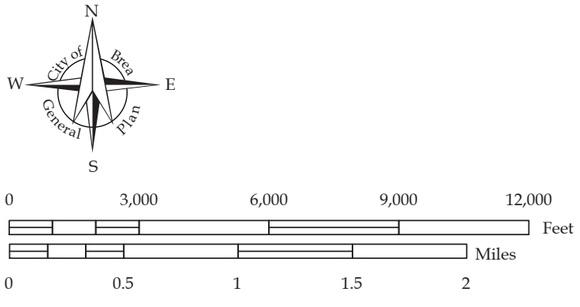
Increased development throughout Brea and the sphere of influence, especially on currently undeveloped lots, will increase the amount of impervious surfaces, thereby increasing the amount and speed of runoff. Increased runoff volumes and speeds may create nuisance flooding in areas without adequate drainage facilities. In particular, the Brea Creek Channel captures and conveys significant runoff from the hillsides.

As indicated by Flood Insurance Studies[2] for Brea, extremely variable rainfall in the area prohibits the ability to predict and plan for area floods. Expected floods are considered to be short in duration, high in peak volumes, and high in velocity. Flood insurance rate maps prepared by FEMA shows potential flood zones in the western portion of the city (between Puente Street and Brea Boulevard) and areas along Carbon Canyon Road and Carbon Canyon Regional Park. The location of the Orange County Reservoir and Carbon Canyon Dam also presents flooding problems. However, according to FEMA, flooding in this area is considered lower than in other parts of Orange County. This can be attributed to the flood control structures that have been established in and around Brea.

[2] *City of Brea Sewer Master Plan*. AKM Consulting Engineers. May 2001.



Source: Federal Emergency Management Agency-National Flood Insurance Program, May 1996; Earth Consultants Internation, January 2002; California Governer's Office of Emergency Services (OES); Los Angeles County Department of Water and Power.



Legend

- City Boundary
- Sphere of Influence
- Creeks, Streams, and Drainage Channels

Floodplains

- 100-Year Floodplain
- 500-Year Floodplain

Dam Failure Inundation and Reservoir Location

- Reservoir
- Dam/Reservoir Failure Inudation Pathway

BREA GENERAL PLAN

Figure 9

Flooding Hazards

Any development that may occur within these designated flood zones will be subject to the potential risk of flooding during severe storm events. Thus, the General Plan contains goals and policies in the Public Safety chapter to reduce the risk of flooding to the community.

Goal PS-7 Reduce the risk to the community from flooding hazards.

Policy PS-7.1 Cooperate and work with the Orange County Flood Control District to ensure District flood control facilities are well maintained and capable of accommodating, at a minimum, 100-year storm flows.

Policy PS-7.2 Require that new developments minimize stormwater and urban runoff into drainage facilities by incorporating design features such as detention basins, on-site water features, or other strategies.

Policy PS-7.3 Maintain an active storm drain inspection program.

Policy PS-7.4 Protect critical facilities located within areas subject to flooding.

Policy PS-7.5 Evaluate and monitor water storage facilities to determine which facilities are not self-contained and might pose an inundation hazard to downstream properties.

Implementation of the General Plan will not put structures at risk of flooding or inundation. Impact will be less than significant. However, project-level mitigation measures will be required for project-level development within the 100-year flood zone.

Mitigation Measures

For development within the designated 100-year flood zone, the following mitigation measures will be implemented at the project level:

1. Any development proposed within a designated 100-year flood zone shall be required to utilize design and site planning to ensure that structures are elevated at least one foot above the 100-year flood zone.

2. Necessary storm drain improvements ~~identified in the *Sewer Master Plan*~~ shall be implemented as demand requires and funds are available.

Level of Impact after Mitigation

No significant impact will result.

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3.11 Utilities/Service Systems

This section examines whether implementation of the General Plan will require the construction of new water supply or wastewater treatment facilities, will strain water supplies, or will generate substantial refuse volumes that cannot be accommodated by current or planned landfills. Through the Initial Study process, impacts regarding wastewater treatment requirements and compliance with federal, State, and local solid waste regulations were identified as less than significant. The issue of storm water drainage facilities is addressed in Section 3.10, Hydrology.

Water Supply[1]

Environmental Setting

The City Maintenance Department is responsible for the distribution of domestic water and the maintenance of the overall water system. The City's existing water distribution system includes over 162 miles of pipeline, 5 storage tanks, 3 supply connections with the California Domestic Water Company (CDWC), 3 supply connections with the Metropolitan Water District (MWD), 4 booster pumping stations, 73 pressure reducing stations, 2 rate flow controls stations, and 5 emergency interconnections with neighboring agencies. The system serves approximately 10,627 potable water meter services, approximately 84% of which are residential connections.

The City purchases all of its domestic water supply from two water wholesale agencies: MWD and CDWC. MWD supplies derive from the Colorado River and from the California Water Project, which draws water from the San Francisco-San Joaquin Bay Delta. CDWC pumps water from wells in the San Gabriel Valley. These two water sources are blended to provide the water directly to households and businesses. Brea purchases an average of 11,000 acre-feet per year, with approximately 66 percent of the supply coming from MWD and 34 percent from CDWC. There is one groundwater well owned by the City, but this water is used strictly for irrigation. Although the La Habra Groundwater Basin is located beneath Brea, the water quality in the basin is poor and would require treatment and blending with higher quality water to meet the State's public health standards.

The majority of the City's water supply comes from MWD through three existing connections: OC-6, OC-29, and OC-62. The OC-6 meter connection has been closed since 1996. OC-29 is connected to MWD's Lower Feeder. The R.B. Deimer Filtration Plant supplies the Lower Feeder with filtered water. The OC-62 connection is tied to the Orange County Feeder, which starts at the Orange County Reservoir. The Orange County Reservoir is owned by Brea, La Habra, and Fullerton, and has a total capacity of approximately 150 acre feet. Brea owns 40% of the reservoir with an entitlement of 15.9 acre-feet (af) per day.[2]

[1] Information in this section is from the City of Brea Water Master Plan Update prepared by Daniel Boyle Engineering. July 2002.
[2] One acre-foot of water equals 325,851 gallons, which is roughly the amount of water a family of five uses in one year.

CDWC is a mutual water company that supplies water from the Main San Gabriel Basin to its customers who own and/or lease stock in the company. One share of stock entitles the owner to a flow rate of 1.4325 af/year. The City currently owns 1,272 shares of CDWC, which yields an entitlement allotment of approximately 1,822 af/year. However, this amount will vary from year to year depending on the condition of the Basin. Brea typically purchases more than its entitlement each year by leasing additional shares of CDWC stock from member agencies that do not use their full entitlement.

The City's *Water Master Plan Update* (2002) estimates that the average annual water demand is approximately 9,648 af/year, which equates to an average daily use of 8.6 million gallons per day or 5,972 gallons per minute.

Threshold Used to Determine Level of Impact

Implementation of the General Plan will have a significant impact if uses create demand in excess of existing or planned entitlements.

Environmental Impact

New development built pursuant to General Plan policy will increase demand for water supply and increase fire flow requirements. Development on undeveloped parcels will require the extension of water mains and hydrants. The *Water Master Plan Update* estimates water demand at buildout within the City and its sphere of influence. The water demand analysis accounts for seven proposed or recently approved development projects, including: Tomlinson Park, the Birch Hills Specific Plan, Olinda Ranch, the AERA Energy development (the portion in Orange County), Tonner Canyon, and Tonner Hills. The growth projections are consistent within those shown in the Land Use component of the General Plan Community Development chapter. The *Water Master Plan* projects water demand at buildout at 18.127 million gallons per day and 12,588 gallons per minute.

The existing supply is approximately 5 cubic feet per second (cfs) less than the projected maximum daily demand at buildout. An additional 5 cfs is proposed from MWD's 96-inch Lower Feeder at the OC-29 connection by increasing the connection from 15 cfs to 20 cfs. Through MWD, there will be sufficient supply to meet demand for water at buildout. The Community Resources chapter of the General Plan contains goals and policies to address water conservation:

Goal CR-11 **Conserve and protect water resources through water conservation standards, sustainable development practices, and water quality standards.**

Policy CR-11.1 Develop water conservation plans, standards, and/or guidelines for all new construction projects to address such issues as water-conserving plumbing fixtures, on-site stormwater retention, drought-tolerant landscaping, and gray water use.

Policy CR-11.2 Establish standards for the use of reclaimed water for landscaping.

Policy CR-11.3 Base water use fees and charges on a system that rewards conservation and discourages consumption beyond standard levels.

Policy CR-11.4 Promote techniques and methods for water conservation throughout the community.

Per the General Plan Implementation Guide, the City's Water-Conserving Landscape Ordinance will be amended to require the use of drought-resistant plant species (native species where possible) in landscaping for private and public areas, including parks. Implementation actions call for the City to conserve water by encouraging the Maintenance Services Department to expand the production of recycled water and work with the districts to develop new uses for recycled water and develop new water sources to serve the Planning Area. The City will also require the incorporation of water-conservation devices (including low-flush toilets, flow restriction devices and water conserving appliances) and a dual system when reclaimed water is available in new residential and non-residential development, public projects, and rehabilitation projects. Although implementation of the General Plan will result in new development, water conservation measures will balance demand. Impact will be less than significant, and no mitigation is required.

Mitigation Measures

General Plan policy and water conservation programs adequately address water supply conditions. No mitigation is required.

Level of Impact after Mitigation

Impact will be less than significant.

Wastewater[3]

Environmental Setting

The City provides wastewater collection service to all properties within its corporate boundaries, as well as portions of unincorporated Orange County and a small portion of the city of Placentia. The total service area is approximately 14,555 acres.

The City's existing wastewater collection system consists of a network of gravity sewers and one sewer pump station. The gravity system has 109 miles of pipe and 2,450 manholes. The majority of the gravity sewers are constructed of vitrified clay pipe ranging in size from 8 to 27 inches in diameter. Ten major sewage flow drainage areas feed into the City's trunk sewers, which are then distributed to Orange County Sanitation District facilities (OCSD). According to the Brea *Sewer Master Plan (2002)*, the City's average daily wastewater flow is 5.325 million gallons.

[3] Information in this section is from City of Brea Sewer Master Plan prepared by AKM Consulting Engineers in May 2001.

Thresholds Used to Determine Level of Impact

The project will result in a significant impact if long-term implementation of the General Plan will:

- Require or result in the construction of new water or wastewater treatment facilities, or the expansion of existing facilities
- Result in the need for new wastewater capacity to serve the project's demands

Environmental Impact

New development built pursuant to General Plan land use policy will increase wastewater generation. The *Sewer Master Plan* estimates wastewater generation at "ultimate" development. Ultimate development includes the maximum project development within the City and the sphere of influence, including Tomlinson Park, Brea Towne Plaza, Tonner Canyon, Brea Highlands, Birch Hills, Brea Sports Park, Olinda Heights, Carbon Canyon, and Canyon Crest. The growth projections are consistent within those shown in the Land Use component of the General Plan Community Development chapter. The City's average total wastewater flow is projected to be 8.081 million gallons per day at ultimate buildout, an increase of 2.756 million gallons per day, or 34%.

The Community Development chapter of the General Plan includes the following goals and policies related to sewer infrastructure:

Goal CD-13 **Provide sufficient levels of water, sewer, and storm drain service throughout the community.**

Policy CD-13.1 Coordinate the demands of new development with the capacity of water and sewer systems.

Policy CD-13.2 Implement the City's water and sewer master plans to correct known deficiencies.

Policy CD-13.3 Require that new developments fund fair-share costs associated with City provision of water, sewer, and storm drain service.

Policy CD-13.4 Work with developers to ensure adequate funding and support for required infrastructure is provided or ensured via bonds.

Hydraulic analyses of the collection system mainline sewers in the *Sewer Master Plan* determined ultimate capacity deficiencies in a total of 25,626 feet of pipe in 6 drainage regions. Implementation of the Capital Improvement Program recommended in the *Sewer Master Plan* will provide for adequate wastewater capacity at buildout. The General Plan action program calls for the City to implement the recommendations of the *Sewer Master Plan*, ensuring a less than significant impact from new development on the wastewater system. In addition, the Orange County Sanitation District's 1999 Strategic Plan (Master Plan) and Capitol Improvement Program set forth increases in sewer system improvements to convey wastewater runoff flows to the District's

treatment plants through the year 2020. The District has indicated that General Plan land use policy does not appear to have an impact.[4]

Mitigation Measures

No mitigation beyond implementation of the *Sewer Master Plan* is required.

Level of Impact after Mitigation

Impact will be less than significant.

Solid Waste

Environmental Setting

The City contracts for solid waste collection services.[5] Brea Disposal provides collection of residential refuse, recyclables (newspaper, cardboard, computer paper, magazines, glass, aluminum cans, and plastic containers), and yard waste, and disposes of the waste at County landfills. The County of Orange owns and operates three active Class III landfills, which accept only non-hazardous municipal waste. These are the Olinda-Alpha landfill within Brea's sphere of influence, the Frank R. Bowerman landfill near Irvine, and the Prima Deshecha landfill in San Juan Capistrano. The Olinda-Alpha landfill is the solid waste facility most often receiving waste from Brea. The City of Brea is under contract to the County of Orange to commit all of its waste to the County landfill system, not to a particular facility, until the year 2007.

The Olinda-Alpha landfill encompasses approximately 562 acres, with about 420 acres permitted for refuse disposal. The landfill opened in 1960 and is currently scheduled to close in December of 2013.[6] Olinda-Alpha is permitted to receive a daily maximum of no more than 8,000 tons of waste per day. The County's Integrated Waste Management Department is conducting a study that may extend the life of the disposal capacity of this facility.

The Frank R. Bowerman landfill covers approximately 725 acres, with 326 acres permitted for refuse disposal. The landfill opened in 1990 and is scheduled to close in 2024. The landfill is permitted to receive a daily maximum of no more than 8,500 tons of waste per day. The Integrated Waste Management Department is also studying whether to extend the life/disposal capacity of this landfill.

The Prima Deshecha landfill is approximately 1,530 acres with 1,000 acres permitted for refuse disposal. The landfill was opened in 1976 and is scheduled to close in 2040. The landfill is permitted to accept up to 4,000 tons of waste per day.

[4] Letter to Karen Haluza, Senior Planner, City of Brea, from David A. Ludwin, P.E., Director of Engineering, Orange County Sanitation District. March 13, 2003.
[5] www.ci.brea.ca.us
[6] Orange County Landfills at www.oclandfills.com

The California Integrated Waste Management Act (Assembly Bill 939) changed the focus of solid waste management from landfill to diversion strategies such as source reduction, recycling, and composting. Brea is responsible for meeting Assembly Bill 939 mandate of 50% disposal reduction and for preparing AB 939 (AB 939) solid waste planning documents. These documents include the Source Reduction and Recycling Element (SRRE), the Household Hazardous Waste Element (HHWE), and the Non-Disposal Facility Element (NDFE).[7]

Threshold Used to Determine Level of Impact

General Plan implementation will result in a significant impact if permitted landfill capacity is insufficient to accommodate projected solid waste disposal needs.

Environmental Impact

Implementation of the General Plan will result in an increase of development within the Planning Area and a related increase in solid waste generation. The City has a contract with Orange County for waste disposal through 2007. Furthermore, both the Frank R. Bowerman and Prima Deshecha landfills are not anticipated to close during the 20-year planning period. Brea Disposal will continue to provide recycling services through 2007, and the City will continue to implement solid waste reduction programs in compliance with AB 939. Impact will be less than significant.

Mitigation Measures

Compliance with AB 939 will ensure a less than significant impact on landfill capacity. No mitigation is required.

Level of Impact after Mitigation

Impact will be less than significant.

[7] Timothy Neely, Manager of Environmental Planning Services Division, County of Orange. Letter to Karen Haluza, Senior Planner, City of Brea, dated July 3, 2002.

3.12 Population/Housing

This section examines whether implementation of the General Plan will induce substantial population growth either directly or indirectly. The Initial Study analysis indicated that the General Plan adoption and implementation would not displace substantial numbers of existing housing units or people.

Environmental Setting

The incorporated city limits of Brea encompass 11 square miles, with roughly 31% of the area developed with residences, 24% with businesses, 5% with schools and major public facilities, and 11% covered by parks and other open space. The sphere of influence encompasses 12 square miles and consists mainly of rolling hills and natural open space, including large portions of Chino Hills State Park. The hillside areas contain oil production facilities and the Olinda Alpha landfill. However, the majority of the sphere of influence is vacant.

The State Department of Finance estimated Brea's January 1, 2002 population at 36,857.[1] With an average of 2.7 persons per household, Brea has an estimated 13,650 existing housing units. Population projections developed by the Southern California Association of Governments indicate that Brea can anticipate a 37% increase in its population by the year 2020, to 46,900 residents. This represents an increase of approximately 10,000 residents in the next 18 years within the city and sphere of influence.

Threshold Used to Determine Level of Impact

A significant population impact will result if General Plan implementation will induce substantial population growth in the area, either directly or indirectly.

Environmental Impact

General Plan land use policy allows for approximately 13,600 new residents, and 6,213 new dwelling units within the entire Planning Area will result in an increase of dwelling units and population within the Planning Area. New residents are expected to locate primarily in the proposed hillside residential developments. The availability of new employment opportunities resulting from the development of vacant land and infill development for employment generating uses will also draw additional residents. As shown in Table 15, the population of Brea will increase by approximately 13,626 persons to a total projected population of 50,483 in the year 2020. It is anticipated that new residential development will increase the housing stock to 19,079 units in 2020.

[1] State of California, Department of Finance, City/County Population and Housing Estimates, 2002, Revised 2001, with 2000 Census Counts. May 2002.

Table 15
General Plan Land Use Projections

Land Use Category	Project Dwelling Units/Household			Projected Population (Year 2020)		
	City	Sphere of Influence	Total	City	Sphere of Influence	Total
Hillside Residential	262	1,903	2,165	693	5,035	5,729
Very Low Density Residential	439	4	443	1,162	10	1,173
Low Density Residential	5,803	774	6,577	15,355	2,047	17,401
Medium Density Residential	3,105	0	3,105	8,271	0	8,217
High Density Residential	5,119	0	5,119	13,545	0	13,545
Mixed Use I-Residential	332	0	332	879	0	879
Mixed Use II-Residential	1,338	0	1,338	3,540	0	3,540
Total	16,399	2,680	19,079	43,391	7,093	50,483

Source: Brea General Plan, March 2003.

Impacts associated with population growth without commensurate housing units, such as overcrowding, are not expected. In addition, an ample amount of vacant land exists, particularly in the sphere of influence, to accommodate housing unit construction. Nonetheless, population is anticipated to increase by 37% during planning period. Impact will be significant.

Mitigation Measures

Accommodation of increased population is the basic purpose of the General Plan. Mitigation measures throughout the General Plan in the form of goals and policies are intended to reduce impacts of population growth on the urban systems and the natural environment. The General Plan allows for moderate, balanced, and manageable growth supported by adequate infrastructure. Implementation of programs such as transportation demand management, the Congestion Management Plan, recycling, water conservation, and other programs in conformance with regional plans will further reduce the effects of population growth. No further mitigation is required.

Level of Impact after Mitigation

Impact will be less than significant.

3.13 Public Services/Recreation

This section examines whether implementation of the General Plan will result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to provide acceptable service levels for fire protection, police protection, educational, library, and recreation services.

Emergency Services

Environmental Setting

Fire Protection

The City of Brea Fire Department provides fire protection services within the city. The Fire Suppression Division consists of 42 full-time firefighters, 12 allotted positions for Firefighter Apprentices, and a Fire Explorer program.[1] Suppression personnel staff the 4 fire stations and 1 administrative office. Each station is assigned to a Fire Management Zone, a geographically based area of responsibility that represents their primary assigned emergency response district. Table 16 lists the fire stations throughout Brea and the equipment and personnel at each station.

Table 16
Brea Fire Department Resources

Station Number	Location	Equipment	Personnel
1	555 North Berry Street	1 Engine Company 1 Paramedic Unit	4 career personnel
2	185 South Laurel Avenue	1 Engine Company	3 career personnel
3	400 North Kraemer Boulevard	1 Engine Company 1 Paramedic Unit 1 Truck Company	4 career personnel 1 Chief Battalion
4	170 Olinda Place	1 Attack 3-4 Unit	1 career personnel

Source: City of Brea Fire Department

The Department maintains engines and ladder trucks, miscellaneous equipment, and staff cars and light trucks. The Division responds to fires, medical aids, rescues, public assists, and releases or potential releases of hazardous materials. In 2001, the Fire Department responded to 3,474 alarms. Average response time is 4 to 6 minutes.

The Division also performs Fire Prevention Code enforcement, issuing Uniform Fire Code permits, life safety planning, fire protection, and public safety education. All personnel are trained and certified in CPR, EMT-D, hazardous materials first responder, swift water rescue, confined space

[1] City of Brea Fire Department. www.ci.brea.ca.us

rescue, and the Standardized Emergency Management System based on the Incident Command System. A radio-operated emergency alarm system is used by Fire, Police, and Ambulance services.

Fire protection and emergency services in the sphere of influence are provided by the Orange County Fire Authority (OCFA).[2] Table 17 lists the stations serving Brea's sphere of influence and the equipment and personnel at each station.

Table 17
Orange County Fire Authority Resources

Station Number	Location	Equipment	Personnel
10	18422 East Lemon Drive, Yorba Linda	1 fire engine 1 water tender	16 career personnel
34	1530 North Valencia Avenue, Placentia	2 fire engines 1 medic unit	1 Battalion Chief 8 career personnel
35	110 South Bradford Avenue, Placentia	1 fire engine	4 career personnel

Source: Orange County Fire Department

OCFA maintains automatic and mutual aid agreements with adjacent non-OCFA fire departments for an emergency aid fire response.

Police Protection

Brea maintains its own police force and supplies manpower to the adjacent city of Yorba Linda on a contract basis.[3] The Police Department maintains two police stations at the following locations: 1 Civic Center Circle and 20994 Yorba Linda Boulevard (in Yorba Linda). The Department employs 100 sworn personnel, 18 reserve officers, and 36 part-time civilian employees. The Department's equipment includes 28 patrol cars, 16 motorcycles, K-9 units, undercover cars, and bicycles. The Department operates the Brea Police Explorers program and Citizen's Academy designed to give the community a better understanding of police work and provide volunteer opportunities for interested community members. Community Action Patrol (C.A.P.) is a group of residents and business owners in Brea and Yorba Linda who volunteer at least 16 hours a month in the Police Department. With a current population of 34,599 persons, the City has approximately 2.9 sworn officers per 1,000 residents.

Police protection services in the sphere of influence are provided by the Orange County Sheriff's Department (OCSD).[4] There are currently 4 Sheriff's deputies assigned to the project area; response time varies depending on time of day, location, and traffic conditions. OCSD has no plans of increasing the number of deputies serving this area. The Brea Police Department maintains a mutual aid agreement with OCSD to assist during times of overwhelming need.

[2] Orange County Fire Authority.
[3] City of Brea Police Department. www.ci.brea.ca.us
[4] Orange County Sheriff's Department.

Threshold Used to Determine Level of Impact

Implementation of General Plan policy will result in a significant impact if the provision of new or physically altered government facilities is necessary to maintain acceptable emergency service levels, and the construction of such facilities results in substantial adverse physical impacts.

Environmental Impact

Fire Protection

Development anticipated to occur pursuant to General Plan policy will increase demand for fire protection services and facilities. The General Plan anticipates a substantial increase in development in the sphere of influence. If these properties are annexed to Brea, the City's Fire Department would have increased response responsibilities. The anticipated development will also increase demand for water resources for fire protection and other emergencies.

The Public Safety chapter of the General Plan includes the following goals and policies to support fire protection services and fire safety:

Goal PS-1 **Ensure that City public safety services are of the highest quality.**

Policy PS-1.2 Provide up-to-date technology to the Brea Police and Fire Department.

Policy PS-1.4 Work with the Fire Department to determine and meet community needs for fire protection and related emergency services. Ensure that sufficient stations, personnel, and equipment are provided to meet growth needs in the City.

Policy PS-1.5 Maintain a minimum 4 to 6 minute emergency response time for fire safety services. Maintain a 3 to 5 minute response time from emergency police response services. Require that all new development be able to meet established standards for such response.

Policy PS-1.6 Impose special conditions as needed on development projects to ensure that adequate fire protection measures are in place and maintained.

Policy PS-1.9 Maintain and update, as appropriate, the City's emergency preparedness programs, plans, and procedures to ensure the health and safety of the community in the event of a major disaster.

Policy PS-1.10 Initiate annual public information programs that explain the City's Emergency Preparedness Program and other emergency preparedness programs.

In addition to these goals and policies, the City has adopted and implements a Nexus Program that requires all new development to pay a fire impact fee at the time the building permit is issued to offset the cost of providing additional services. At the time individual development projects are proposed, the City imposes conditions of approval (and CEQA documentation may require mitigation) to ensure that development does not proceed in advance of the City having adequate response capabilities. The payment of fees funds enhancements to Fire Department stations,

equipment, and personnel to ensure adequate response. At this time, the Fire Department has not identified a need to construct a new station to serve anticipated new development over the long term. Thus, the project will not result in the need for a new fire station.

Implementation actions in the General Plan Implementation Guide call for the City to utilize wildland urban fire hazard mitigation techniques involving vegetation modification including chipping, scattering, multi-cutting, crushing, pruning and other non-fire hazard abatement concepts. These measures will improve fire safety conditions in heavily vegetated areas. Implementation of the General Plan will result in a less than significant impact on fire protection services.

Police Protection

Development pursuant to General Plan policy will increase demand for police protection services and facilities, including demand for additional personnel and possibly for an additional police substation. The Orange County Sheriff's Department indicated that implementation of the General Plan will have a significant impact on its ability to provide police protection service to the sphere of influence. Once properties have been annexed to Brea, the City's Police Department will be responsible for response. In addition to Goal PS-1 and Policy PS-1.1 mentioned above, the General Plan Public Safety chapter includes the goals and policies to improve police protection services.

Policy PS-1.3 Continue to maintain and develop a community-based police strategy compatible with the needs and size of the community.

Policy PS-1.7 Incorporate the tenets of "Community Oriented Policing" into the design of crime prevention and enforcement programs.

Policy PS-1.8 Use technology to improve crime prevention efforts.

Policy PS-1.11 Support volunteer programs, after school activities such as DARE, police activities within high schools, and Neighborhood Watch programs.

Policy PS-1.12 Ensure that local authorities have the necessary tools and education to cite and correct problems before they becomes safety issues.

Goal PS-2 Improve community safety and reduce opportunities for criminal activity through appropriate physical design.

Policy PS-2.1 Develop defensible space guidelines to be used in the review of development proposals.

Policy PS-2.2 Maximize natural surveillance through physical design features, including well-lighted driveways, walkways, and exteriors; visible entryways from surrounding structures and businesses; well-defined walkways and gates; and landscaping that does not obscure visibility.

Policy PS-2.3 Ensure that community areas and amenities such as transit stops, sidewalks, plazas, and parks are appropriately lighted, free of hidden spaces, and patrolled.

Policy PS-2.4 Practice active surveillance measures in certain areas such as parking structures.

Action programs call for the City to evaluate the need for additional police facilities to serve new development. The County Sheriff's Department also constantly monitors growth throughout the County and re-evaluates demand placed upon its service capabilities. Additional facilities will be provided when warranted, and separate environmental review will be required at such time. Impact will be less than significant.

Mitigation Measures

Impact will be less than significant, and no mitigation is required.

Level of Impact after Mitigation

Impact will be less than significant.

Schools

Environmental Setting

The Brea Olinda Unified School District provides public education to students in grades kindergarten through twelve in Brea and the sphere of influence. The District operates 6 elementary schools (grades K through 6), 1 junior high school (grades 7 and 8), and 2 high schools (grades 9 through 12), including one for continuing education.[5] At all elementary schools, the District also offers day care for students in kindergarten through sixth grade before and after regular school hours and during long school holidays. District enrollment for these 9 schools is approximately 6,058 students. As shown in Table 18, nearly all the schools are operating at or over School Facility Plan capacity.

Table 18
Brea Olinda Unified School District 2002-2003 Enrollment

School	2002 Enrollment	School Facility Plan Capacity
Arovista Elementary	646	500
Brea Country Hills Elementary	618	475
Laurel Elementary	533	450
Mariposa Elementary	549	475
Olinda Elementary	158	150
William E. Flanning Elementary	552	550
Brea Junior High School	979	1,026
Brea Canyon High School	119	120
Brea Olinda High School	1,908	1,917
Total	**6,058**	**5,663**

Source: Brea Olinda Unified School District

For planning purposes, the District uses a student generation rate for grades kindergarten through 12 of 0.56 students per dwelling unit.

[5] City of Brea. www.ci.brea.ca.us

Current plans to increase student capacity for the District include the addition of portable classrooms at Olinda Elementary to accommodate students in the recent Olinda Ranch development area.[6] A new classroom wing for an additional capacity of 500 students at Brea Olinda High School is in the early planning stages. The District is working with the City to develop a new joint-use sports park and junior high school on Birch Street east of the 57 Freeway.

Private schools in Brea include several pre-schools, two Christian schools, and a Catholic school with classes for students in kindergarten through eighth grade.[7] Post-secondary education is available at the Golden State Baptist Theological Seminary.

Threshold Used to Determine Level of Significance

General Plan implementation will result in a significant impact on schools if the generation of new students results in the need for construction of new or expanded school facilities, the construction of which could result in potentially significant physical environmental impacts.

Environmental Impact

New development as a result of the General Plan will include new residential units. General Plan land use policy will result in the addition of approximately 13,600 new residents and 5,430 new dwelling units within the entire Planning Area. This increased population will result in increased student generation. Using the generation factor of 0.56 students per dwelling unit, new development could result in an additional 7,616 additional students.

Senate Bill 50 (SB 50, also known as Proposition 1A, codified in Government Code Section 65995) was enacted in 1988 to address how schools are financed and how development projects may be assessed for associated school impacts. SB 50 provides three ways to determine funding levels for school districts. The default method allows school districts to levy development fees to support school construction necessitated by that development and receive a 50% match from State bond money.

While the City acknowledges that these developments will result in increased need for school facilities, the City is precluded per SB 50 to consider this a significant impact for the purposes for CEQA. The payment of development fees will offset the costs to the District of providing educational facilities to these students. In addition, the General Plan Community Services chapter contains the following goals and policies in support of educational services:

Goal CS-3.1 Continue to partner with parents, families, and the community, to educate all students, encourage students to achieve their fullest potential, and to prepare students to be responsible, contributing citizens.

Policy CS-3.1 Continue to build and support strong relationships and partnerships betweens schools and the community.

[6] Ibid.
[7] Ibid.

Policy CS-3.2 Promote and support the quality public K-12 education system by working closely with the Brea Olinda Unified School District in determining and meeting community needs for public education and related activities.

Policy CS-3.3 Work with the Brea Olinda Unified School District to investigate potential locations and funding sources for new schools.

Policy CS-3.4 Strive to provide equal access to educational and informational resources.

Policy CS-3.5 Actively work with private, non-profit, and public community services organizations to coordinate educational and community services including child care, English translation, after school programs, and recreational activities.

Policy CS-3.6 Support efforts for the establishment of a community college, satellite university campus, vocational school, and/or other post-secondary educational facility in the community.

The environmental effects of construction and operation of additional school facilities will be evaluated by the District when planning for new schools or expansion of existing facilities. The impact of implementation of the General Plan will be less than significant.

Mitigation Measures

No mitigation beyond the payment of school fees is required.

Level of Impact after Mitigation

Impact will be less than significant.

Libraries

Environmental Setting

Brea and the unincorporated land in the sphere of influence are part of the Orange County Public Library community library network. The system includes 31 branches that provide many services to residents throughout the County. The Brea Branch Library is located at the Brea Civic and Cultural Center, 1 Civic Center Drive in Brea.[8]

Threshold Used to Determine Level of Significance

General Plan implementation will result in a significant impact on libraries if the increased demand results in the need to construct new library facilities or expand existing facilities, the construction of which would cause significant environmental impacts.

[8] City of Brea. www.ci.brea.ca.us

Environmental Impact

Population growth facilitated by land use policy will increase the demand for library services and facilities. The Orange County Public Library system maintains a service level standard of 0.2 square feet of library space per capita and 1.5 volumes per capita. The projected population increase by 13,600 residents will create a demand for 2,720 additional square feet of library space and 20,400 new volumes.

The General Plan includes the following goals and policies related to library services in the Community Services chapter:

Goal CS-4 Provide library resources that meet the educational, cultural, civic, business, and life-long learning needs of all residents. Retain a local library that is community–oriented, provides knowledgeable, service-oriented staff, and offers access to information, books, and other materials in a variety of formats that use contemporary technology.

Policy CS-4.2 Work with library staff to assess, select, organize, and maintain collections of materials and information sources of value to and desired by the community.

Policy CS-4.3 Work with library staff to maintain technological services that meet the needs of residents, as well as reader advisory, reference and referral services responsive to user needs.

Policy CS-4.4 Explore funding opportunities for the City to expand the existing County branch library and/or operate a local, independent library.

All new development, particularly developers of new housing, will pay Orange County Library impact fees prior to the issuance of building permits to offset the costs of providing additional library resources for new residents and employees of local businesses. The environmental effects of construction and operation of additional library facilities will be evaluated when planning for new libraries or expansion of existing facilities. Therefore, impact will be less than significant.

Mitigation Measures

Impact will be less than significant, and no mitigation is required.

Level of Impact after Mitigation

Impact will be less than significant.

Recreation

Environmental Setting

Brea's parks, recreational areas, trails and playgrounds offer residents many opportunities to involve themselves and their families and friends in active and passive recreation activities. Both the City and private organizations sponsor recreation programs in Brea for residents of all ages. The Brea Community Services Department coordinates a number of recreational fitness activities, classes and programs focused on meeting the needs of youth and senior citizens. Programs include youth and teen after-school programs, adult and teen sports leagues, and fitness classes for all ages. Specialized classes and programs for preschoolers and youth include music and gymnastics classes, tennis, roller hockey, dance, and fine arts. As well as providing a number of tutoring, sports and after school activities for teens, the Brea Community Center includes "The Zone," a teen activity center that provides a safe, fun place for teens to socialize. Sports leagues and recreation classes offered at the Center include golf, volleyball, yoga, and fencing. Adults as well as older teens can use the Center's fitness/exercise equipment to help maintain their health. Bikeways also form an important component of Brea's recreation and circulation system.

Brea benefits from an assortment of neighborhood, community, and regional parks distributed throughout the community. Passive open space and park areas account for five percent of the land area within the corporate City limits. The City's park system consists of public neighborhood parks, community parks, regional parks, and school parks. Brea owns and operates and maintains 12 parks totaling 36.7 acres primarily designed and used for active recreation. The City also maintains a joint agreement with the Brea-Olinda Unified School District for use of school grounds and play areas, creating an additional 58 acres of park space. Carbon Canyon and Craig regional parks, although located within Brea, are owned and maintained by Orange County. A one-mile-long nature trail in Carbon Canyon Regional Park provides access for hikers, bird watchers, and other amateur naturalists to the park's beautiful Redwood Grove. The park also contains an equestrian trail.

Chino Hills State Park alone, a natural wilderness park with hiking, biking, and equestrian trails, encompasses 3,400 acres in Brea and the sphere of influence. Chino Hills State Park offers 13,000 acres of wilderness area and over 65 miles of hiking, mountain bike riding, and horseback riding trails. The trails allow for passive activities such as bird watching, photography, and nature study, and access many of the park's secluded areas, including riparian areas, open grasslands, and scenic view points. The park is managed by the California Department of Parks and Recreation.

Table 19 provides a description of the parks and recreation facilities available in Brea and its sphere of influence.

The Orange County Master Plan of Regional Riding and Hiking Trails is the regional trails plan for the Orange County. The Master Plan depicts the Fullerton trail traversing the southeastern section of the City. The trail is proposed to connect Clark Regional Park to Carbon Canyon Regional Park, via Craig Regional Park.

Brea has established a service standard of 5 acres of park and recreation facilities per 1,000 residents. Based on the January 1, 2002 population of 36,857 residents and park acreage of approximately 331 acres within the planning area, the ratio is 9 acres of parkland for every 1,000

residents. With the regional parks, Brea currently meets a high service standard. General Plan land use policy set forth in the Community Development Chapter could allow for up to 50,483 people living within the Planning Area. If the current park acreage remained constant, the ratio would reduce to 6.6 acres per 1,000 people.

With regard to park location, service area standards recommended by the National Recreation and Parks Association (NRPA) indicate that a park typically should cover a 1/2- to 1/4-mile service area radius, depending on the size of the park. Larger parks, such as Carbon Canyon Regional Park and Chino Hills State Park usually have a much larger service area, meeting park demand beyond the City of Brea. Based on this standard, certain areas of Brea lack park and recreation facilities. For example, the northwest neighborhood contains the 0.5-acre Woodcrest pocket park, with no other nearby parks.

Table 19
Brea Parks and Recreation Facilities

Number	Park Name	Location	Amenities	Acres
City-Owned/Maintained Facilities				
Mini or Pocket Parks				
1	Woodcrest Park	Woodcrest Ave. at Puente St.	Barbeques, Children's play area, and picnic tables.	0.5
Neighborhood Parks				
2	Arovista Park	Imperial Hwy at Berry St.	Children's play area, barbeques, picnic tables, restrooms, ball diamonds, soccer fields, volleyball court, amphitheatre, concession stand, football field, and basketball courts	15.0
2	Arovista Skate Park (located in Arovista Park)	Imperial Hwy at Berry St.	"Street" and "freestyle" features with a rails, kidney pool, pyramid, table top, blank wall, ¼ pipes, and spectator seating area.	10,000 sq. ft.
3	Brea Jr. High School Park	400 N. Brea Blvd.	Children's play area, ball diamonds, soccer fields, volleyball court, tennis courts, concession stand, football field, and basketball courts	13.0
4	City Hall Park	401 S. Brea Blvd.	Olympic-size swimming pool (Brea Plunge), restrooms, barbeques, Children's play area, basketball courts, and gazebo.	4.0
5	Country Hills Park	180 N. Associated Rd.	Restrooms, barbeques, Children's play areas, picnic tables, ball diamonds, soccer fields, tennis courts, concession stand, and football field.	6.0
6	Greenbriar Park	Greenbriar Rd. and Associated Rd.	Barbeques, Children's play area, picnic tables, and restrooms.	3.0
7	Lagos De Moreno Park	200 S. Flower Ave.	Barbeques, Children's play area, and picnic tables.	1.5
8	Tamarack Park	520 N. Tamarack Ave.	Restrooms, barbecues, Children's play area, ball diamond, soccer fields, concession stand, football field, and basketball courts.	5.6
9	Brea Golf Course (municipal)	501 West Fir St.	Nine-hole course with driving range.	26.0

Table 19 (Con't.)
Brea Parks and Recreation Facilities

Number	Park Name	Location	Amenities	Acres
Community Parks				
10	Tri-City Park (maintained by the Cities of Brea, Fullerton and Placentia)	Kraemer Blvd. at Golden Ave.	Restrooms, barbeques, Children's play area, picnic tables, bicycle trails, lake, and fishing.	40.0
Non-city Owned/Maintained Regional Parks and Facilities				
Regional Parks *(C)*				
11	Carbon Canyon Regional Park	Carbon Canyon Rd. (1 mile east of Valencia Blvd.)	Tennis courts, Children's play area, volleyball, ball diamond, multipurpose fields, hiking and biking trails, guided nature tours, picnic tables, and fishing.	125.0
12	Ted Craig Regional Park	3300 State College Blvd. (partially in Brea)	Restrooms, barbecues, Children's play area, picnic tables, ball diamonds, soccer fields, tennis courts, volleyball, racquetball courts, amphitheater, concession stands, bicycle trails, football field, basketball courts, and fishing.	129.0
School Parks (A,B)				
13	Arovista Elementary School/Park	900 Eadington Drive	Playground, softball fields.	
14	Fanning Elementary School/Park	650 North Apricot Ave.	Playground, softball and soccer fields.	
15	Laurel Elementary School/Park	200 S. Flower Ave.	Playground and multi-purpose fields.	
Other Recreation				
16	Chino Hills State Park	Partially in Orange, Riverside, and San Bernardino Counties	Trails for hikers, mountain bikers, and equestrians, camping, and 13,000 acres of wilderness.	3,400 (D)
17	Birch Hills Golf Course		18 hole executive golf course.	

Source: City of Brea and Chino Hills State Park General Plan, February 1999

Note: (A) Joint use agreement with Brea-Olinda Unified School District.

(B) Maintained by the Olinda-Brea Unified School District

(C) Maintained by the County of Orange

(D) 3,400 acres are located in the Brea and Brea's Sphere of Influence, with the remaining acres located in the City of Chino Hills.

In addition to the parks listed in Table 19, the Tonner Hills Specific Plan includes Wildcatter Park, a 14-acre active and passive park.

Threshold Used to Determine Level of Impact

Implementation of the General Plan will result in a significant impact if it will:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would occur or be accelerated.

- Include recreational facilities or require the construction or expansion of facilities which might have an adverse physical effect on the environment.

Environmental Impact

Implementation of the General Plan will result in new development and population growth in the Planning Area. With development pursuant to the General Plan, the population of Brea and its sphere of influence may increase to 50,483 at General Plan buildout. With the implementation of the General Plan, Brea will still exceed its park service standard of 5 acres per 1,000 residents. There will be 6.6 acres of parkland per 1,000 residents based on the projected population of 50,483 residents, assuming no additional park space is added. The City currently is in the process of planning a joint-use sports park and junior high school on Birch Street. Construction was recently completed on a 13-acre public park as part of the Olinda Ranch residential project. New major residential development projects are encouraged to provide parkland per the City's standards. The provision of new facilities will help meet increased demand for parks and open space.

The General Plan includes goals and policies for the provision of additional parks and recreational opportunities in the Community Resources chapter.

Goal CR-1 **Provide a variety of parks and recreation facilities that meet the diverse needs and interests of the community.**

Policy CR-1.1 Develop a high-quality network of parks and recreational facilities that meet the needs of families, young adults, seniors, children, and disabled individuals.

Policy CR-1.2 Provide similar or equal levels of parks and recreational facilities to all areas of the community.

Policy CR-1.3 Use the following as standards for park development, recognizing that the function of a particular park also affects classification within the system:

Type of Park	Size and Service Area
Smaller green spaces in urban areas (mini, tot lots, and/or pocket parks)	0.5 to 5 acres, with a ¼ mile service area radius in residential setting
Neighborhood Park	5-10 acres, with a ¼- to ½-mile service area radius
Community or Sports Park	20-50+ acres, with a ½- to three- mile service area radius
Regional Park	50 acres or larger

Policy CR-1.4 Incorporate into large-scale residential developments small neighborhood parks and greens suitable for unstructured play and passive recreation.

Policy CR-1.6 Provide similar or equal attention to the development of facilities for individualized activities (casual park use, bicycling, walking, running, skating and riding) as is given to organized recreation and sports.

Goal CR-2 Protect and preserve existing parks and recreation facilities.

Policy CR-2.1 Protect existing public parks and open space areas from non-recreational uses.

Policy CR-2.2 Ensure that sports facilities for organized sports do not displace existing casual use facilities and parks.

Goal CR-3 Maximize use of open space areas capable of supporting park-type activities.

Policy CR-3.1 Maximize use of available facilities through careful scheduling.

Policy CR-3.2 Continue the school/park joint use concept for increased recreational resources and year-round use of these facilities.

Policy CR-3.3 Use Carbon Canyon Regional Park, Craig Regional Park, and Army Corps of Engineer properties to satisfy some of the City's recreational demands, particularly as they pertain to facilities that require large, relatively level land, such as sports park fields.

Policy CR-3.4 Explore the recreational potential of publicly owned lands and utility rights-of-way.

Policy CR-3.5 Coordinate efforts with other public agencies regarding State and federal programs for existing and potential trail systems, recreational facilities, and recreation programs.

Policy CR-3.6 Encourage the development of recreational facilities by the private sector, including small parks and large-scale facilities requiring a high level of supporting services, supplies, and maintenance. Recreational facilities should be available to all members of the public.

Policy CR-3.7 Develop parks and recreation facilities in a manner that ensures that a minimum of damage to the environment occurs, while still providing a high quality recreation experience.

The Implementation Guide calls for the City to assess the existing park and recreation system according to the standards established in the Parks and Open Space Section and to require dedication of park facilities, a fee in lieu thereof, or a combination of both, as a condition of new development pursuant to the Quimby Act. Action programs also call for the development of parks and recreational facilities by the private sector, but available for use by the public. Park facility dedication and development fee requirements will be reviewed annually to ensure they reflect changing needs of the community, population growth, and current land and construction costs. Impact will be less than significant.

Mitigation Measures

The environmental effects of construction and operation of new park facilities will be evaluated when new park facilities are proposed. Impact of implementation of the General Plan will be less than significant, and no mitigation is required.

Level of Impact after Mitigation

Impact will be less than significant.

4.0 Alternatives to the Project

The following discussion considers alternatives to the General Plan and examines potential environmental impacts resulting from each alternative. Through comparison of these alternatives to the General Plan, the relative advantage of each can be weighed and analyzed. The CEQA Guidelines require that a range of alternatives be addressed, "governed by a rule of reason that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice" (Section 15126[f]).

The Guidelines state that the discussion of alternatives must focus on alternatives capable of either eliminating any significant environmental effects of the project or reducing them to a less than significant level, while achieving most of the major project objectives. According to the analysis presented in the prior sections, buildout pursuant to General Plan policies will result in unavoidable significant impacts with regard to air quality and traffic on Carbon Canyon Road due to right-of-way constraints that make mitigation infeasible.

In addition to focusing on alternatives capable of either eliminating any significant environmental effects of the project or reducing them to a less than significant level, the following analysis also examines variations of the proposed project that were considered during preparation of the General Plan and that may be considered further during the public hearing process. The following project alternatives are examined:

Alternative 1: No Project
Alternative 2: Reduced Extent of Mixed Use I
Alternative 3: Reduced Density for Hillside Development
Alternative 4: Reduced Extent of Mixed Use II

None of the above alternatives includes an alternate location. The goals and policies of the General Plan are specific to the geographic context of the Brea Planning Area. Buildout pursuant to General Plan policy at an alternate location would not achieve goals specific to the City of Brea.

The alternatives analyzed in the EIR are general in nature, as is the proposed project. The degree of specificity used in the alternatives analysis is related to the programmatic approach used in the analysis of the General Plan. Development across the entire Planning Area is addressed in the alternatives analysis, rather than specific development projects.

Alternative 1: No Project

This alternative assumes the existing General Plan remains as the adopted long-range planning policy document for Brea. Development would continue to occur within the Planning Area in accordance with the existing General Plan, Zoning Code, and specific plans. Buildout pursuant to the existing General Plan would allow current development patterns to remain. Current policy allows for slightly more residential development because of fewer restrictions on hillside development than the proposed updated Plan. Current policy would also allow for slightly more

commercial and industrial development because the current Plan does not implicitly allow mixed-use development, although such has been provided in the Brea Towne Plaza Specific Plan and other redevelopment activity. The current General Plan would not support mixed used along South Brea Boulevard but would continue the current pattern of corridor commercial uses. Along Valencia Boulevard between Imperial Highway and Birch Street (Unocal property), industrial uses would remain. Also, no explicit guidelines for hillside residential development would be provided. However, a similar amount of development at buildout would be anticipated under the existing Plan as the proposed General Plan.

Environmental Effects

Continuation of the existing General Plan would result in an equivalent level of development and population growth. However, development would be more spread out, particularly in the hillside areas. Potentially less open space would exist in the hillsides, resulting in greater aesthetic and biological impacts compared to the proposed General Plan. The hillsides are an important scenic resource in Brea. The proposed General Plan encourages clustered development in the canyons and flatter areas to preserve ridgelines, slopes, and habitat as open space. Disperse development in the hillsides would interrupt wildlife corridors and create discontinuous habitat. Traffic generation associated with the existing General Plan would be slightly higher due to the absence of mixed, integrated land use patterns in specific areas of Brea. Therefore, this alternative would result in greater impacts with regard to aesthetics, biological resources, and traffic.

Air quality is closely tied to traffic volumes. Traffic volumes are expected to be slightly higher under this alternative because trips would be longer and more frequent as a result of dispersed development patterns; thus, air quality impacts of the existing General Plan would be slightly greater. More people would drive to run errands and travel to work if uses are segregated, as under the No Project alternative. Increased car use and traffic will release more air pollutant emissions and exacerbate the effect of carbon monoxide on sensitive receptors where "hot spots" are formed. Therefore, the No Project Alternative would have a greater environmental impact than the proposed General Plan.

Relation to City Objectives

The benefits of the proposed General Plan would be eliminated under this alternative. The proposed General Plan introduces new land use categories, Mixed Use I and Mixed Use II, to allow complementary uses to locate next to each other. The new mixed use categories provide private property owners with expanded opportunities to develop underutilized parcels along Valencia Avenue, South Brea Boulevard, and the corner of Puente Street and Central Avenue. The existing General Plan does not provide the tools to create a pedestrian-friendly environment and to reduce vehicle use in certain areas within Brea. Since parcels in both residential and nonresidential areas have underutilized capacity, the city would continue to experience a gradual increase in housing units and commercial and industrial development throughout Brea. Development of the hillside areas would be expected to continue. This alternative would not protect steeper hillside areas and would result in slightly more spread out development throughout the hillside areas than the clustered development encouraged under the proposed General Plan. Thus, the No Project Alternative would not meet City objectives to the extent provided by the proposed Plan.

Alternative 2: Reduced Extent of Mixed Use I

Alternative 2 assumes that properties along South Brea Boulevard are designated Mixed Use II instead of Mixed Use I. Mixed Use I allows for higher intensities of development (up to 50 units per acre and a maximum floor-area ratio of 3.0) than Mixed Use II (up to 40 units per acre and a maximum floor-area ratio of 2.0). Mixed Use I also assumes a greater percentage of commercial development. Instead of more concentrated commercial development, this alternative would alter the focus of development in this area to primarily residential uses, with public open spaces.

Environmental Effects

Residential uses generate substantially less traffic than commercial uses. Thus, Alternative 2 would reduce traffic volumes along South Brea Boulevard in particular and within the Planning Area as a whole, relative to the proposed project. Also, residents would be able to walk to retail and employment opportunities because development would be focused more on residential uses. The Mixed Use II designation would allow significantly less commercial development on South Brea Boulevard. As a result, fewer trips to South Brea Boulevard would result. Fewer trips would also significantly reduce air pollutant emissions relative to the proposed project. This alternative has the potential to reduce the significant air quality impacts associated with the proposed project.

The lower development intensity associated with Mixed Use II (compared to Mixed Use I) translates to less intense development on individual parcels. By providing for less intense development, the City would be able to better address concerns expressed by residents in adjacent residential neighborhoods regarding potential massing, shading, and privacy impacts new mixed-use development could bring.

Relation to City Objectives

The benefits of the proposed General Plan would be achieved under this alternative. The proposed General Plan introduces mixed uses on South Brea Boulevard as primarily commercial uses, whereas Mixed Use II provides a residential focus. Alternative 2 would maintain the mixed-use designation and the benefits associated with creating a more pedestrian-friendly environment and reducing dependence on the automobile. This alternative supports the goals of the proposed General Plan by allowing more compact development and encouraging a more walkable community. This alternative also encourages alternative forms of transportation that ultimately would provide more mobility options to residents. Therefore, this alternative would meet City objectives.

Alternative 3: Reduced Density for Hillside Development

Alternative 3 assumes a reduced intensity of development in the hillside areas. Specifically, under this alternative, development in the areas designated as Hillside Residential would be limited to 1 unit per 20-acre parcel. The proposed General Plan bases allowable density in Hillside Residential areas on specific site characteristics. This approach encourages clustering and avoidance of sensitive areas, thereby creating more opportunities for open space linkages. Under Alternative 3, a

total of 120 units would be developed for all areas designated Hillside Residential. Development under this alternative would be spread out throughout the hillside areas. Compact development would not be possible.

Environmental Effects

This alternative would result in substantially fewer homes in the hillsides. Most of the open space areas would be contained on large, private properties. The visual impact of the proposed General Plan would be decreased under this alternative because there would be less visible development in the hillside areas. However, under Alternative 3, clustered development would not be possible. Developers and property owners would not be permitted to concentrate development on a portion of the project site and leave the remaining land area as open space. Development would be less dense under this alternative, but large areas of publicly accessible open space might not be created.

Alternative 3 would produce fewer new homes compared with the proposed General Plan. Thus, the alternative would result in fewer new vehicle trips and fewer air pollutant emissions than the proposed General Plan.

Although this alternative would be expected to result in a lower density of development and potentially more private open space, the impacts to biological resources could be greater. Alternative 3 would not guarantee large areas of unfenced open space, as are possible with clustered development. As a result, habit could become more fragmented. The effects of nighttime lighting might be increased, since Alternative 3 would result in sporadic areas of light throughout the hillsides instead of concentrated lighting in a single area to serve a number of houses. Additional streets would be constructed to provide access to dispersed housing sites. Emergency response times might be increased to the dispersed units.

This alternative would reduce the significant air quality impacts associated with the proposed General Plan. However, new impacts to sensitive hillside areas would result.

Relation to City Objectives

Alternative 3 would not achieve all of the benefits of the proposed General Plan. Alternative 3 would preserve slightly more hillside land but it would not create an inclusive community. Residents in these scattered parcels would have to travel farther for community and neighborhood services, most likely by automobile. A range of mobility options could not easily be provided to residents in hillside developments. Brea would also not achieve its goals of sustainable stewardship of natural resources because habitats would be fragmented by sporadic housing development in the hillsides. Therefore, Alternative 3 would not achieve the City's objectives.

Alternative 4: Reduced Extent of Mixed Use II

This alternative assumes that the northwest corner of Puente Street and Central Avenue would be designated Neighborhood Commercial instead of Mixed Use II, as proposed by the updated General Plan. Area residents have expressed a desire that the site retain its current Neighborhood

Commercial land use designation. The Mixed Use II designation allows for development of residential uses at a maximum density of 40 units per acre and commercial uses at a maximum 2.0 floor-area ratio, and emphasizes residential uses as the primary use. The Neighborhood Commercial designation permits a broad range of retail, office, and service-oriented business activities at a maximum 0.5 floor-area ratio, but does not allow residential uses.

Environmental Effects

Commercial businesses in general generate substantially greater traffic volumes than residential uses. Thus, a Neighborhood Commercial designation has the potential to provide for uses that would result in greater traffic volumes along both Puente Street and Central Avenue compared to the proposed General Plan, particularly if the site contains uses that attract patrons from a broader market area than the surrounding neighborhood. Higher traffic volumes would produce greater noise and air quality impacts compared to the proposed project. This alternative would not reduce the significant air quality impacts associated with the project.

Relation to City Objectives

Alternative 4 would achieve all objectives of the proposed General Plan with the exception of encouraging pedestrian-friendly development where most practical and encouraging reuse of underutilized sites.

Environmentally Preferred Alternative

Given the citywide scope of the proposed General Plan and the long-term nature of implementation, Alternative 2, Reduced Extent of Mixed Use I, has the potential to reduce traffic, and to reduce localized air quality and noise impacts resulting from decreased traffic volumes primarily on South Brea Boulevard. In addition, it would meet the overarching goals of the proposed General Plan. Therefore, Alternative 2 is the environmentally preferred alternative.

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5.0 Cumulative and Long-Term Effects

Cumulative Effects

The CEQA Guidelines (Section 15355) define a cumulative impact as "an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." The Guidelines further state that "an EIR should not discuss impacts which do not result in part from the evaluated project."

Section 15130(a) of the CEQA Guidelines requires a discussion of cumulative impacts of a project "when the project's incremental effect is cumulatively considerable." Cumulatively considerable, as defined in Section 15065(c), "means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

The project is a comprehensive update of the Brea General Plan that affects the City and its sphere of influence (referred to together as the Planning Area) as a whole. Thus, cumulative citywide impacts have been addressed in the preceding analysis in this EIR. A broader examination of cumulative impacts involves considering the project together with growth in the region.

Development pursuant to General Plan policy will occur in accordance with land use designation and development intensities identified in the Land Use section of the Community Development chapter. These designations promote the recycling of underutilized land to higher uses, compact development, mixed-use development to promote a pedestrian-friendly environment, an improved balance between employment and housing, and protection of Brea's natural resources, especially the hillside areas.

Brea's General Plan land use policy and the associated development yield correlates to regional growth estimates made by the Southern California Association of Governments (SCAG). SCAG estimates anticipated growth for the 6-county SCAG region for the purpose of allocating growth to specific areas and identifying regional transportation infrastructure needed to support regional growth. General Plan policy accommodates 50,483 people at buildout, whereas SCAG projects a population of 46,900 for year 2020.[1] Brea will be able to accommodate more than its share of regional growth. The General Plan is consistent with regional growth projections; therefore, no significant cumulative land use impact will result.

As development occurs within Brea and Orange County, traffic volumes on the regional road network will increase. However, as discussed in Section 3.3, Transportation/Traffic, implementation of Brea's Nexus Program will ensure that all intersections within the City do not exceed their

[1] Southern California Association of Governments, 2001 RTP Growth Forecast. Available at: www.scag.ca.gov/forecast/rtpgf.htm.

associated LOS standards and do not create a significant impact. Traffic generated primarily from the Carbon Canyon Specific Plan area will cause a significant and unavoidable impact on Carbon Canyon Road from Valencia Avenue to the eastern City edge. This impact, however, will only partially contribute to regional traffic and to cumulative traffic impacts. Therefore, cumulative traffic impacts will be less than significant.

Air pollutant levels in the South Coast Air Basin regularly exceed State and federal air quality standards. Development projected for the region will generate increased emission levels from transportation and stationary sources. Potential cumulative air quality impacts will be partially reduced by the implementation of the SCAQMD Air Quality Management Plan and policies and programs contained in local general plans, including those in the Brea General Plan Community Resources chapter. Since the combined emissions from uses in the City and other cities in the region and Basin will continue to exceed State and federal air quality standards, cumulative impact will be significant and avoidable.

Growth-inducing Impacts

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss the growth-inducing impact of the project. Growth inducement includes, "ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas)."

The General Plan is specifically intended to provide for the orderly growth of Brea, define the limits to that growth, and act as a mechanism to accommodate and control future growth. Development permitted by land use policy will provide needed housing for all income levels, create compact and pedestrian-friendly urban development, and protect natural resources. The General Plan will result in a more inclusive community, maintain a balance between housing and employment, and foster a stable economic base and diverse employment opportunities.

The General Plan allows for an increase of approximately 13,600 new residents and 6,213 new dwelling units within the entire Planning Area. New residents will locate in Brea because of the diverse employment base and proposed new housing developments. Over half of the new housing development will occur in the sphere of influence, which is currently undeveloped. New development in this area will require the installation of new infrastructure such as roadways, water systems, and sewage collection lines. The extension of this infrastructure could facilitate additional growth; however, the growth induced by the additional utilities would be confined to the project area and would not cause a significant growth-inducing impact to the region. The General Plan is consistent with applicable regional plans and does not intensify uses relative to these adopted plans.

Significant Irreversible Environmental Changes

For EIRs prepared in connection with the adoption of a plan, the CEQA Guidelines Section 15127 requires a discussion of irreversible environmental changes. Adoption and implementation of the General Plan will result in impacts on the local environment which will affect both short-term uses and the maintenance and enhancement of long-term usage of land within the city.

The General Plan will allow for infill development within existing residential neighborhoods and business districts, as well as new development on vacant properties within the Planning Area. In general, the irreversible land use changes resulting from adoption and implementation of the General Plan will be beneficial rather than detrimental since the changes will:

- Balance land uses within Brea in a manner that ensures that revenue generated matches the City's ability to provide a high level of community facilities and services
- Maintain the quality and diversity of the community's residential neighborhoods
- Create opportunities for new commercial and industrial business growth in areas of the city well served by the circulation network
- Provide open space areas that meet the recreation needs of a diverse demographic and protect Brea's natural resources
- Create compact, full-service neighborhoods that reduce dependence on the automobile
- Provide a range of mobility choices to meet the needs of residents of all ages and income types

Irreversible commitments of limited resources resulting from General Plan implementation include the use of building materials, minerals, and water consumption.

Unavoidable Significant Impacts

Implementation of the General Plan will result in significant unavoidable project-level traffic impacts on Carbon Canyon Road east of Valencia Avenue in addition to project-level and cumulative air quality impacts. Implementation of mitigation measures and General Plan policies identified in this EIR will reduce these impacts to the extent feasible. However, because Brea lies within an air basin that is a non-attainment area for State and federal air quality standards, increased emission generation will significantly impact regional air quality.

Areas of No Significant Impact

The CEQA Guidelines Section 15128 requires a statement indicating the reasons that various possible significant effects were determined not to be significant and were therefore not discussed

in the EIR. Such a statement is contained in the attached copy of the Initial Study in Appendix A for the following issues:

- Agricultural Resources
- Air Quality: air quality plan and objectionable odors
- Cultural Resources: historical resources
- Geology and Soils: septic tanks
- Hazards and Hazardous Materials: airport and emergency response plan
- Hydrology and Water Quality: drainage patterns, water quality, and inundation
- Land Use and Planning: established community and land use plan
- Noise: airport and private airstrip
- Population and Housing: displace housing or people
- Transportation and Traffic: air traffic patterns and adopted policies
- Utilities and Service Systems: wastewater treatment requirements and solid waste regulations

6.0 Preparers of the EIR

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8.0 Responses to Comments on Draft EIR

This section of the Final EIR contains comments and responses to written comments received during the 45-day public review period on the Draft EIR that extended from January 31, 2003 to March 17, 2003. The written comments received are presented in chronological order by date of receipt of correspondence. Revisions to the EIR in response to comments are identified by shading, as illustrated in this sentence. The following persons and/or agencies submitted written comments:

1. John W. Ullom, Ullom Associates, on behalf of Nuevo Energy Company. March 7, 2003.

2. Carlos Jaramillo, Deputy Director of Community Development, City of La Habra. March 10, 2003.

3. Glen Campbell, Senior Transportation Analyst, Orange County Transportation Authority. March 13, 2003.

4. Timothy Neely, Manager, Environmental Planning Services Division, Planning & Development Services Department, County of Orange. March 17, 2003.

5. Bob Henderson, Chair, Wildlife Corridor Conservation Authority. March 17, 2003.

6. Robert F. Joseph, Chief, Advanced Planning Branch, California Department of Transportation, District 12. March 17, 2003.

7. Tom Donini, Resident. March 17, 2003.

8. George L. Basye, Vice President, Aera Energy LLC. March 17, 2003.

9. Claire Schlotterbeck, Executive Director, Hills for Everyone. March 17, 2003

10. David W. Ludwin, P.E., Director of Engineering, Orange County Sanitation District. March 19, 2003.

11. Karen A Goebel, Assistant Field Supervisors, U. S. Fish and Wildlife Service. March 20, 2003.

12. Timothy Neely, Manager, Environmental Planning Services Division, County of Orange Planning and Development Services Department. March 21, 2003.

13. Gary Watts, District Superintendent, California Department of Parks and Recreation Inland Empire District. March 21, 2003.

14. Michael E. Balsamo, Director of Governmental Affairs, Building Industry Association of Southern California. March 24, 2003.

1. John W. Ullom, Ullom Associates, on behalf of Nuevo Energy Company. March 7, 2003.

Response 1-1

The Population and Housing discussion in the Executive Summary (Final EIR, page ES-9) has been revised. It reads, "New residential development is anticipated to increase the housing stock up to 19,079 units." The 22,794 units figure cited in the Executive Summary was a typographical error. Analysis throughout the Draft EIR was based on the 19,079 figure.

Response 1-2

The comment states that Figure 2 (Final EIR, page 5) shows the land use designation of the Nuevo Energy property as Hillside Residential and Low Density Residential. The comment is acknowledged. No response is required.

Response 1-3

General Plan land use designations apply to projects approved after Plan adoption. The Tonner Hills project, which was processed under the authority of Orange County, was in process while General Plan preparation was underway and was approved by the County after Brea released the Draft General Plan for public review. The Draft General Plan reflects the City's objectives and proposed policies relative to the subject property at the time of Draft General Plan publication. Since that time, the City and County have approved a Memorandum of Understanding (MOU) regarding the Tonner Hills Specific Plan, and the City is of the opinion that the designations shown accommodate the Tonner Hills project. While this comment does not raise an environmental issue, the City notes that certification of the Final EIR for the Tonner Hills Specific Plan has be challenged in court, and that subsequent court action could alter the Specific Plan as approved.

Response 1-4

As stated on page 106 of the Final EIR, "the following or similar mitigation measures will be applied to any development project located within the blast zone of a natural gas plant or soil seepage zone." These mitigation measures or similar measures will be applied to development projects built pursuant to the adoption and implementation of the General Plan and do not apply to projects which have already been approved. Individual development projects will require an assessment of the environmental impacts of the development in compliance with CEQA, as well as comply with existing federal, State, and local regulations regarding the location of habitable structures near wellheads. Appropriate mitigation measures specific to the individual development project will be applied as determined by applicable agencies, such as the Brea Fire Department and the Orange County Fire Authority.

Response 1-5

As stated on page 138 of the Final EIR, "The City is currently in the process of planning a joint-use sports park and junior high school on Birch Street." Information regarding the Olinda Ranch Park was only recently completed and was therefore not included in Table 19, Brea Parks and Recreational Facilities, on pages 134-135 of the Draft EIR. Information about this park has been added to the discussion of recent recreation projects on page 138 of the Final EIR.

Response 1-6

As stated in the comment, the City of Brea is in negotiations with the Orange County Transit Authority (OCTA) to remove the Valencia Avenue connection to Tonner Canyon Road from OCTA's Master Plan of Arterial Highways (MPAH). The removal of the Valencia Avenue connection is dependent on the cooperative process with OCTA. Therefore, the Circulation Map will retain the Valencia Avenue connection until such time as the cooperative process with OCTA has concluded. Since it is the City's intent to remove the connection from the MPAH, the connection was not originally depicted in the General Plan. However, the General Plan will be amended to make it clear that one of the states goals of the Circulation Element is for City to enter the cooperative process with OCTA to amend the MPAH to delete this MPAH facility. This change is reflected in the Final EIR on page ES-2 of the Executive Summary, page 7 of the Section 1.0 (Project Description), and page 29 of Section 3.2 (Transportation/Traffic).

2. Carlos Jaramillo, Deputy Director of Community Development, City of La Habra. March 10, 2003.

Response 2-1

As indicated in the comment, the portion of La Habra adjacent to Brea directly north of Central Avenue contains land located within the 100- and 500-year floodplains. This portion of Brea is zoned Low Density Residential and is already completely built out. Only low-density residential infill development will be expected to occur during the 20-year planning period. To protect Brea and minimize the impact of development on adjacent cities, the General Plan includes policies to minimize stormwater and urban runoff from entering the drainage facilities, maintain an active storm drain inspection program, and cooperate with the Orange County Flood Control District to ensure that District flood control facilities are capable of accommodating, at a minimum, 100-year storm flows (see Final EIR, page 117). New development will be required to incorporate design features, such as on-site retention, to prevent excessive amounts of runoff from entering the drainage system at once such that could result in flooding of downstream areas. Flooding impacts on La Habra and other adjacent areas will be analyzed at a project-specific level and mitigation measures applied to protect downstream uses. In addition, the Final EIR states on page 117 that the City will implement necessary storm drain improvements to ensure that the storm drainage infrastructure in Brea is capable of handling additional stormwater flows generated by the growing population and that the additional stormwater flows do not result in flooding of downstream areas, including in adjacent cities.

Response 2-2

The City of Brea will continue to foster a cooperative relationship with the City of La Habra. New development will be reviewed on a project-by-project basis and will require an assessment of the environmental impacts of the project both on the City of Brea and adjacent cities as necessary, depending on the location of the project. The City of La Habra will continue to be informed of and involved in the review of development projects along Brea's westerly border, as has occurred for previous projects.

Response 2-3

See Response 2-2.

Response 2-4

The General Plan traffic study used a long-range time frame of 2025 to forecast traffic volumes used in the analysis. The demographic projections for this time frame are either directly from OCP-2000 (outside the City of Brea) or are similar to OCP-2000 (inside the City), thereby providing a consistent database for traffic modeling purposes. Forecasts based on OCP-2000 are used by all jurisdictions in Orange County for long-range planning; therefore, the General Plan update for the City of Brea is consistent with these forecasts.

The traffic study indicates that several intersections will be deficient at build-out without improvements. However, the City has a Nexus Program which provides for the collection of fees. The fees are used to fund improvements needed to achieve service level goals for the affected

intersections. Those deficiencies will be addressed by the Nexus Program, as stated on pages 33-34 of the Final EIR.

With regard to any regional impacts in La Habra or other surrounding jurisdictions, the City maintains a cooperative stance to coordinate signal timing along multi-jurisdictional arterial roadways to improve regional traffic flow. See also Response 2-6 below.

Response 2-5

The traffic study examines the citywide circulation system through the year 2025. As noted in Response 2-4, it is assumed that all other Orange County jurisdictions examine their long-range needs based on the same OCP-2000 long-range data. By using this data, no jurisdiction is actually causing an impact on a neighboring jurisdiction, but simply carrying out long-range planning in a consistent manner.

Response 2-6

With respect to land use entitlements, the City of La Habra and the City of Brea have traditionally evaluated traffic impacts in their respective neighboring cities when impacts of a proposed project extend across city limits. When appropriate, those impacts are then subject to agreements to mitigate the project impacts.

The General Plan does not involve any specific new development projects. Specific development projects following the adoption of the General Plan will be subject to critical analysis of impacts on the circulation network. At that time, specific mitigation measures will be applied to the project to minimize or avoid traffic impacts. The City of La Habra and the City of Brea have frequently entered into fair-share traffic impact fees in the past, and this relationship is expected to continue to mitigate the impact of project-level traffic impacts.

Response 2-7

The City of Brea is undergoing the cooperative process required by the OCTA guidelines for amending the MPAH. The City of La Habra will be part of the cooperative process, and proposed changes in La Habra can be incorporated into the traffic forecasting and analysis that will be carried out as part of the cooperative process.

3. Glen Campbell, Senior Transportation Analyst, Orange County Transportation Authority. March 13, 2003.

Response 3-1

As stated in the comment, the City of Brea intends to work with OCTA to delete the proposed Tonner Canyon Road/Valencia Avenue connection, downgrade South Brea Boulevard from a planned 6-lane Major Arterial to a 4-lane Primary Arterial, and downgrade Whittier Boulevard east of Palm and Puente Street north of Central from a 4-lane undivided Secondary Street to a 2-lane Collector facility. These activities will require an amendment to the OCTA MPAH, which is dependent on the outcome of a cooperative process with OCTA. As recommended by OCTA, the General Plan Circulation Element has been revised to ensure consistency with the MPAH and to reflect that it is the goal of the City to work with OCTA to amend the MPAH to delete and reclassify several MPAH facilities. The Circulation Plan will retain the MPAH facilities until such time as the cooperative process with OCTA has concluded. This information has also been added to the Final EIR on page ES-2 of the Executive Summary, page 7 of the Section 1.0 (Project Description), and page 29 of Section 3.2 (Transportation/Traffic). The revised Circulation Plan is attached for reference.

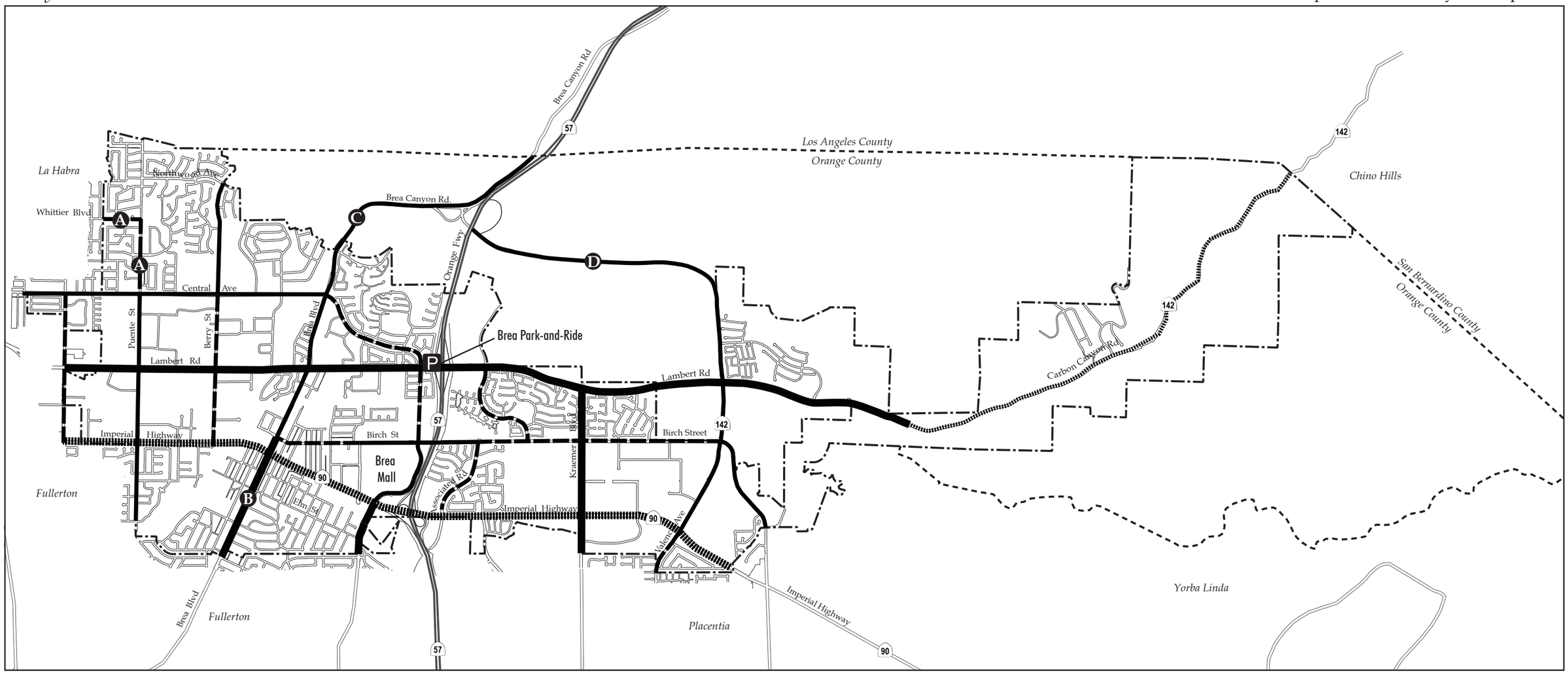
The City notes that the traffic analysis has assumed these amendments will occur. Given that the proposed amendments reduce roadway capacity and that the modeling analysis shows that the higher classifications now shown on the MPAH are not needed to accommodate long-term growth, no adverse impact not already identified in this EIR would result should OCTA choose not to adopt one or more of the proposed MPAH amendments.

Response 3-2

See Response 3-1. As recommended by OCTA, the General Plan Circulation Element has been revised to ensure consistency with the MPAH, and the City has begun the negotiation process to reclassify and delete these MPAH facilities. The Circulation Map will retain the MPAH facilities until such time as the cooperative process with OCTA has concluded.

Response 3-3

The recommendations are acknowledged and appreciated. See Responses 3-1 and 3-2.



Source: Orange County Master Plan of Arterial Highways, 2001; Austin Foust Associates, 2002.

Legend

- City Boundary
- Sphere of Influence

Arterial Highways

- Major Arterial
- Smart Street
- Primary Arterial
- Secondary Arterial
- Collector/Commuter Roadway

P Park and Ride

N W E S City of Brea General Plan

0 3,000 6,000 9,000 12,000 Feet

0 0.5 1 1.5 2 Miles

Notes:

A Whittier Boulevard and Puente Street north of Central Avenue will be redesignated as Collector/Commuter Roadway following parallel changes to the Orange County Transportation Authority (OCTA) Master Plan of Arterial Highways (MPAH).

B South Brea Boulevard south of Imperial Highway will be redesignated Primary Arterial following parallel changes to the OCTA MPAH.

C Brea Canyon Road will be redesignated Modified Secondary following changes to the OCTA MPAH.

D The Valencia Avenue extension between the entrance to the Olinda Alpha landfill and SR-57 will be deleted following parallel changes to the OCTA MPAH.

BREA GENERAL PLAN

Revised Figure CD-7

Circulation Plan

4. Timothy Neely, Manager, Environmental Planning Services Division, Planning & Development Services Department, County of Orange. March 17, 2003.

Response 4-1

The commentor states that the County of Orange has reviewed the Draft EIR and has no comment at this time. The comment is acknowledged, and no response is required.

5. Bob Henderson, Chair, Wildlife Corridor Conservation Authority. March 17, 2003.

Response 5-1

The Final EIR states that the entire Planning Area encompasses 14,482 acres, with 6,946 acres within the corporate limits and 7,536 acres within the sphere of influence (see page ES-1 in the Executive Summary). These numbers have been adjusted slightly to reflect more accurate mapping.

Response 5-2

The Final EIR states that General Plan land use policy allows for approximately 13,600 new residents and 6,213 new dwelling units within the entire Planning Area (see page 125 in Section 3.12, Population/Housing). The Executive Summary contained a typographical error. Analysis throughout the Draft EIR was based on 13,626 new residents and 6,213 new dwelling units.

Response 5-3

The comment states that there is a wildlife crossing in Tonner Canyon at the 57 Freeway and that wildlife crossings along Carbon Canyon Road are frequent. This information has been added to the Final EIR on page 81. The General Plan contains the following policies, as stated on page 85 of the Final EIR, to protect wildlife migration corridors and wildlife crossings:

Goal CR-8 Preserve and maintain wildlife and animal movement corridors.

Policy CR-8.1 Preserve key wildlife migration corridors and habitat areas.

Policy CR-8.2 Provide adequate wildlife crossings where roadways have severed habitat areas.

Policy CR-8.3 Cooperate with regional agencies and authorities with similar goals in protecting and enhancing wildlife and animal movement corridors.

Policy CR-8.4 Regular monitoring of medium and large mammals is necessary to gauge the effective ness of wildlife corridors and to identify or increases in wildlife populations.

In addition, the General Plan Implementation Program calls for the City to require development proposals, particularly within the sphere of influence and hillside areas, to preserve, restore, and enhance existing wildlife corridors, habitat, and roadway crossings (see page 85 of the Final EIR).

The General Plan does not propose any new development projects. The City is very aware of and sensitive to the concerns for wildlife crossings. These considerations were discussed during the drafting of the General Plan. The City has included the above policies and implementation programs in the Plan to reflect this sensitivity. These policies and programs are designed to provide the flexibility to apply specific stringent mitigation measures to projects regarding habitat conservation and preservation, wildlife migration, and wildlife roadway crossings to specific development projects at the time the development is proposed.

Response 5-4

Information provided in the comment regarding the potential increase in vehicle-wildlife collisions on Carbon Canyon Road has been added to page 85 of the Final EIR. General Plan Policy CR-8.2, as stated on page 83 of the Draft EIR, calls for the provision of adequate wildlife crossings where roadways have severed habitat areas. Policies in the General Plan require that development meet specific performance standards – including adequate circulation and habitat preservation – in order to be approved. Impact will be less than significant.

The General Plan does not propose any new development projects. The General Plan does propose any change to land use policy within the Carbon Canyon Specific Plan area. The General Plan reflects the 30% intensity reduction approved by the City Council 2 years ago and the City's plan to retain Carbon Canyon Road in its current 2-lane configuration. These standards will achieve City goals that are consistent with WCCA's goals. See also Response 5-3.

Response 5-5

The General Plan Land Use Map (page 5 of the Final EIR) designated hillside areas in Brea's sphere of influence as Hillside Residential. This land use designation strictly regulates natural areas and protects habitat and sensitive species, a primary concern of the City. The hillside areas are privately owned. The City cannot designate or zone these properties Open Space, as such a designation would deny viable economic use of private property and could be considered "taking" private property. The Hillside Residential designation looks to achieve a balance between allowing some measure of reasonable development while pursuing habitat preservation goals. The process described in the Community Development chapter of the General Plan (beginning on page 2-1) requires sensitive area preservation to be a key consideration in land use planning. To minimize impact to biological resources, the General Plan contains goals and policies to protect and preserve sensitive habitat areas and wildlife migration corridors. See also Response 5-3.

Response 5-6

This EIR pertains to the environmental impacts associated with the Brea General Plan. The Canyon Crest project is a separate development proposal before the adoption of the General Plan. The City is currently reviewing the proposal, and a separate project EIR has been prepared.

Response 5-7

These comments on the General Plan Land Use Map are the commentor's opinion regarding land use designations and do not refer to environmental impacts or the Draft EIR. No response is required.

Response 5-8

See Response 5-3. The General Plan does not propose any development projects. New developments will be reviewed on a project-specific basis. At that time, the dedication of land for permanent preservation to avoid or offset significant environmental impacts could be considered.

Response 5-9

The commentor's opinion regarding Figure 6 Existing Vegetation is acknowledged. This map is based on Orange County GIS data. This map is shown as a reference. No development will occur within the "Disturbed Area" in Chino Hills State Park. The Canyon Crest project is currently under review by the City for consistency with the Carbon Canyon Specific Plan and in light of the proposed policies contained in the draft General Plan that is the subject of this EIR.

Response 5-10

See Responses 5-3 and 5-4 regarding wildlife-vehicle collisions. The updated information provided in this comment has been added to page 85 of the Final EIR.

Response 5-11

The commentor's opinion is acknowledged. The California gnatcatcher and its habitat are described on page 79 of the Final EIR. In addition, the EIR (on pages 85-86 of the Final EIR) includes the following mitigation measures to protect the gnatcatcher and other sensitive and protected species:

1. Retention of rare communities shall be incorporated into building and project design to the maximum extent practical. Rare communities include oak, riparian and wetland, walnut woodland, and coastal sage scrub. If retention is not practical, healthy specimens shall be relocated and/or replaced.

2. Developers will be required to restore and re-vegetate where the loss of small and/or isolated habitat patches is proposed.

3. If construction activity is timed to occur during the nesting season (typically between March 1 and July 1), developers will be required to provide focused surveys for nesting birds pursuant to California Department of Fish and Game requirements. Such surveys shall identify avoidance measures taken to protect active nests.

4. Removal of nonnative trees shall be permitted only outside the nesting season.

5. Any crushing of existing habitat during the breeding season of the gnatcatcher shall occur only under the supervision of a biological monitor.

The General Plan does not propose any development projects. Project-specific mitigation to protect the California gnatcatcher will be applied to individual development projects in accordance with federal, State, and local regulations for protected and sensitive species.

Response 5-12

The commentor's opinion is acknowledged. This comment applies to the General Plan. No response is required.

6. Robert F. Joseph, Chief, Advanced Planning Branch, California Department of Transportation, District 12. March 17, 2003.

Response 6-1

The comment letter dated July 10, 2002 is included in Appendix A of the Draft EIR and Final EIR. These comments were taken into consideration in the traffic study during preparation of the Draft EIR.

Response 6-2

Reference to the land use and trip generation summary (page 3-2 of the traffic study) shows that almost two-thirds of the total trip generation within the City is from non-residential land uses (commercial, office, and industrial). While a significant amount of growth is anticipated in the area around Tonner Canyon Road, there are increases expected throughout Brea and the sphere of influence. The traffic model predicts that future traffic volumes on any given roadway are based on the geographic distribution of land use for the year 2025 (within Brea) and for OCP-2000 year 2025 data for areas outside of Brea.

Response 6-3

The performance criteria used for this planning level analysis uses the intersection capacity utilization (ICU) methodology for signalized intersections. As future, more detailed analyses are carried out for the SR-57 interchanges, other procedures will also be used, including the highway capacity methodology and methodologies that address the close proximity of the intersections at the interchange and with State College Boulevard. This latter feature is noted in the traffic report (see special discussion on Lambert Road/SR-57 Interchange on page 4-2) and that this is a special study area in recognition of these unique characteristics.

Response 6-4

See Response 6-2 for a discussion of land uses and traffic forecasts. With respect to Valencia Avenue and Lambert Road, it should be noted that improvements have recently been made at this intersection and the existing conditions reflect those recent improvements.

Response 6-5

The General Plan Circulation Element recommends deleting the northward extension of Valencia Avenue to Tonner Canyon Road from the General Plan and from the MPAH. As required by OCTA, a cooperative process has been initiated for the amendment, and Caltrans is part of that cooperative process. The Circulation Plan will retain the MPAH facilities until such time as the cooperative process with OCTA has concluded. However, the Tonner Hills Plan is not dependent on this vehicle connection from Valencia Avenue to Tonner Canyon Road. The approved plan for the Tonner Hills project does not contain any connection points on the northern edge of the project site.

The City proposed this deletion consistent with its goals to protect sensitive habitat areas in the hillsides and to route traffic through urbanized areas. The City recognizes that the Valencia Avenue

extension is cited in the Four Corners Study as one potential method of relieving east-west congestion on Carbon Canyon Road and peak-hour traffic on SR-57. However, the City supports other means of congestion relief that would not compromise other important regional goals, foremost the protection of critical habitat and wildlife movement corridors.

Response 6-6

The comment is acknowledged. As discussed in the traffic report in Appendix A (page 4-2), Carbon Canyon Road has been designated a special collector, with the need for evaluation of non-traditional creative approaches to enhancing capacity.

Response 6-7

The comment is acknowledged. No response is required.

Response 6-8

The comment is acknowledged. No response is required.

Response 6-9

The comment is acknowledged. No response is required.

7. Tom Donini, Resident. March 17, 2003.

Response 7-1

The EIR analyzed the traffic, noise, and aesthetic impacts of this area zoned as Medium Density Residential and Mixed Use I. These designations assume a higher density of development and intensity of use than the Low Density Residential designation. It was determined in the EIR that adoption and implementation of the General Plan will have a less than significant impact on aesthetics. There will be no significant noise impacts on South Brea Boulevard, South Madrona, or South Walnut. The traffic study concluded that a significant impact will result on the intersection of Brea Boulevard and Imperial Highway. As stated on pages 33-34 of the Final EIR, the City created a Nexus Program to fund long-range transportation improvements in the City. As a result of Nexus Program enhancements, implementation of the General Plan Land Use Element will result in a less than significant impact on City-monitored and CMP intersections.

Any concerns the commentor may have regarding the appropriateness of the proposed designation should be expressed to the Planning Commission and City Council at public hearings scheduled for the General Plan.

Response 7-2

The EIR analyzed the impact of land use compatibility between Historic Brea and Mixed Use I and found that the impact will be less than significant. As stated on pages 24 of the Final EIR, to minimize the potential conflict between the mixed-use development and adjacent historic neighborhoods, action programs call for the City to establish streetscape/landscape design plans for South Brea Boulevard that complement the existing historic environment and resources. Such standards may include restrictions to access. Application of the implementation program will ensure that compatibility will be achieved between the residential uses and mixed-use development on South Brea Boulevard and West Imperial Highway.

Response 7-3

The impacts of allowing mixed-use development pursuant to the Mixed-Use I designation were analyzed in the EIR. As stated on page 24 of the Final EIR, application of the implementation program will ensure that compatibility will be achieved between abutting historic neighborhoods and mixed-use development on South Brea Boulevard. See Response 7-2. Even if South Brea Boulevard is designated Mixed Use II, application of the implementation program will ensure land use compatibility.

As stated on page 138 of the Final EIR, with implementation of the General Plan, Brea will still exceed its park service standard of 5 acres per 1,000 residents. The Mixed Use I designation on South Brea Boulevard will not have a significant impact on parks. The Mixed Use I designation will contribute to an unacceptable Level of Service (LOS) at the intersections of Brea Boulevard/Birch and Brea Boulevard/Imperial Highway. However, as stated on pages 33-34 of the Final EIR, the impacted intersections are included in the City's Nexus Program with appropriate associated improvements at each intersection. As a result of Nexus Program enhancements, implementation of the General Plan Land Use Element will result in less than significant traffic impacts. See Response 7-1.

Response 7-4

See Response 7-3. Adoption and implementation of the General Plan will not result in a significant impact on parks and other public facilities. New major residential development projects will be required to provide parkland or fees per the City's standards (see page 138 of the Final EIR). The City is in the process of planning a joint-use sports park and junior high school on Birch Street. A 13-acre public park was recently constructed as part of the Olinda Ranch residential development, and the Tonner Hills Specific Plan includes a 14-acre active and a passive park. There will be 6.6 acres of parkland per 1,000 residents based on a projected population of 50,483 residents at build out, assuming no additional park space is added.

8. George L. Basye, Vice President, Aera Energy LLC. March 17, 2003.

Response 8-1

Housing elements, per State law, are updated on an approximate 5-year cycle under well-defined regulations. Brea's current Housing Element was adopted in accordance with the cycle established for the SCAG region and will be revisited in 2004-2005, once SCAG releases housing allocation numbers for the next cycle. Brea has no preferred jobs-housing balance. Brea is required to address its Regional Housing Needs Allocation goal, which is accomplished through the 2000 Housing Element. The currently proposed General Plan provides for only modest job growth compared to the previous General Plan. Brea anticipates a growth in employment opportunities by 23%, whereas population is expected to increase by 37% at buildout. Job growth is imperative to maintaining a stable economic base to provide a solid fiscal foundation and diverse employment opportunities, and to ensure the provision of quality community facilities and services (see page 3 of the Final EIR).

As stated on page 125 of the Final EIR, new residential development will increase the housing stock to a total of 19,079 units. The General Plan transfers housing density from sensitive, constrained, and difficult-to-serve hillside areas to residential development opportunities in the proposed mixed-use areas. The General Plan creates additional housing development opportunities on lands that were previously zoned only for commercial uses. The mixed-use designations provide for higher density housing development in areas close to services and jobs and where adequate infrastructure is available.

Response 8-2

General Plan Goal CD-6 encourages and promotes clustered development based on the ability of infrastructure, landforms, physical constraints, and emergency response capabilities to support new development. Clustering of development in previously developed areas, such as Olinda Village, is intended to protect important biological and scenic resources throughout the hillsides of Brea (see page 86 of the Final EIR). It is also intended to locate hillside development in the most appropriate areas, those that are capable of supporting development because there are no constraints posed by infrastructure, landform, geologic and seismic conditions, and emergency response capabilities. The hillsides are generally steep terrain containing scenic ridgelines, sensitive biological habitat, and wildlife migration corridors. To protect these areas and provide the most efficient distribution of public services, development in these areas will be limited and responsive to the physical characteristics of the development site.

Response 8-3

See Response 5-9. Figure 6 on page 67 of the Final EIR is for reference purposes only to indicate the presence or likely presence of specific vegetation communities and to show that the majority of vegetation communities are located in the hillsides of Brea, areas previously undisturbed by development. The figure is based on GIS data from the County of Orange.

If development is to occur in the hillsides in areas used or previously used for oil and natural gas activities, specific measures will be taken to ensure public safety from potential hazards, such as those outlined in Goal PS-5 and Policies PS-5.1, 5.2, and 5.3 (see page 105 of the Final EIR).

As stated on page 21 of the Final EIR, the Natural Community Conservation Planning (NCCP) program was authorized by California law under the Natural Community Conservation Planning Act of 1991. However, information regarding the Shell/Metropolitan Water District Habitat Conservation Plan pursuant to NCCP will be added to pages 21 of the Final EIR in the discussion of the NCCP to illustrate was groups have done to comply with the NCCP program.

Response 8-4

The comment regarding Figure CR-6 applies to the General Plan. This issue will be addressed through the General Plan public comment process. No response is required.

Response 8-5

This comment regarding the redesignation of 40 acres of Aera's property between Rose Drive and Carbon Canyon Dam from Medium Density Residential to Agricultural pertains to the General Plan. This issue will be addressed through the General Plan public comment process. No response is required.

Response 8-6

The City is aware of the Aera Master Planned Community project in the north-central of Brea's sphere of influence and adjoining Los Angeles County. The project is in the preliminary stages of review. The project will be subject to site-specific environmental review that will consider General Plan policies.

Future development projects consistent with General Plan policy are considered in the EIR in Section 5.0, Cumulative and Long-term Effects. As stated on page 147, Section 15130(a) of the CEQA Guidelines requires a discussion of cumulative impacts of a project "when the project's incremental effect is cumulatively considerable." Cumulatively considerable, as defined in Section 15065(c), "means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probably future projects." The project is a comprehensive update of the Brea General Plan that affects the City and its sphere of influence (referred to together as the Planning Area) as a whole. Thus, cumulative citywide impacts have been addressed throughout the EIR. A broader examination of cumulative impacts involves considering the project together with growth in the region.

The General Plan EIR is a Program Environmental Impact Report and does not analyze the impacts of specific development projects. For the analysis of cumulative effects, CEQA Section 15130 provide two options: (1) a list of past, present, and probably future projects; or (2) a summary of projections contained in an adopted general plan or related planning document. Given the nature of this project and the 20-year planning horizon, the City pursued the second option. The EIR addresses the maximum amount of development (buildout) that can occur as a result of implementation of the General Plan land use policy and discusses these impacts throughout the EIR. Individual development projects constructed pursuant to the General Plan will be required to comply with the CEQA Guidelines for environmental clearance, including analysis of specific environmental impacts of the particular development project at the time of development.

Response 8-7

The comment applies to the General Plan. This issue will be addressed through the General Plan public hearing process. No response is required.

Response 8-8

See Reponses 3-1 and 3-2.

Response 8-9

The proposed access onto Brea Canyon Road and a Collector connection at Berry Street are not part of the General Plan Circulation Element as proposed. Aera's proposed project is at a preliminary stage, and various access options have not been analyzed. The applicant will be required to prepare a detailed traffic study to analyze the impacts of the Aera project on the circulation system and any proposed modifications to the system. Once all options have been fully analyzed and a preferred plan chosen, the applicant will be required to process a General Plan Amendment to reflect any proposed changes to the Circulation Plan.

Response 8-10

The City is aware of the variation in traffic volumes from the counts that have been collected for the Tonner Hills Planned Community project on Brea Canyon Road. The section of roadway that shows the variation is between the Tonner Canyon ramps with SR-57 (to and from the south) and the Brea Canyon Road ramps to and from the north. The reason for the variation appears to be freeway avoidance traffic that exits the freeway and then gets back on, using Brea Canyon Road as a by-pass. No such fluctuation occurs south of the Tonner Canyon Road ramps, and generally, consistent volumes have been found for this section of roadway. As future planning work is carried out for the northerly section (such as for the Aera Master Planned Community analysis), the freeway avoidance traffic question will need to be addressed and realistic volumes (or volume ranges) defined for use in transportation planning.

Response 8-11

See Responses 3-1 and 3-2. The City is working with OCTA on the changes to the MPAH identified in the General Plan. The study of these changes to the MPAH will be forthcoming.

Response 8-12

The General Plan does not address a road alternative for diverting trash trucks through Tonner Canyon to the Olinda Alpha Landfill because this road alternative if part of the landfill project and not part of the General Plan. The General Plan assumes that the landfill will continue to operate under existing operation procedures through the year 2007. The County of Orange is exploring the possibility of landfill operation through the year 2040. The County is in the process of preparing an EIR on the landfill extension, which may include an analysis of the road alternative.

9. Claire Schlotterbeck, Executive Director, Hills for Everyone. March 17, 2003

This letter included attachments that for ease of reading have been placed at the end of this section following page 190.

Response 9-1

The commentor's opinion is acknowledged. These comments raise the following issues:

- Proposed hillside densities are inconsistent with policies which call for minimizing the visual and environmental impact of development on sensitive hillside areas and minimizing damage to structures and loss of life as a result of hazards.
- The General Plan lacks adequate policies for protecting structures and lives from hazards.
- The General Plan should include more detail policies to provide guidance and support for implementing ordinances.
- The General Plan Land Use Map and policies are not consistent.
- Allowable densities for hillside areas are inappropriately high.
- Allow a maximum of 1 unit per 20 acres in areas designated Hillside Residential.
- Identify significant wildlife crossings in Brea's hillsides.
- Policies proposed in the General Plan fail to consider avoiding development in areas of moderate to very high fire hazard and areas of geologic and seismic hazards.
- The open space element must contain an action program consisting of specific programs, which the legislative body intends to pursue, including adoption of an open space zoning ordinance consistent with the element.
- The Open Space Map and Land Use Policy Map should include wildlife corridors.

None of the comments directly or indirectly address the EIR analysis. The comments relate to the General Plan document. These issues will be addressed through the General Plan public hearing process.

The commentor's opinion is acknowledged. The opinion states that the General Plan is internally inconsistent with respect to policies which call for minimizing the visual and environmental impact of development upon sensitive hillside areas and minimizing damage to structures and loss of life as a result of hazards. The General Plan land use policies establish the amount of development and the location of different uses. The other General Plan policies provide additional protection measures for development and enhancement measures to improve quality of life for the community. All of these policies and their environmental consequences are analyzed in the EIR. As stated on page 87 of the Draft EIR, the City will revise the Hillside Development Ordinance to incorporate the protection of scenic resources provided for in General Plan Policies CD-7.2, CD-7.7, CD-10.1, CD-10.2, CD-10.3, CD-10.4, CD-10.5, and CD-10.6 that will further limit development in the hillsides in order to preserve scenic viewsheds and important scenic ridgelines. Based on these goals and policies, the Land Use Element will not have a significant impact on scenic resources throughout the Planning Area. Therefore, the analysis in the EIR finds that the General Plan is consistent throughout and that the goals and policies further enhance the protection of sensitive resources found in Brea and the sphere of influence.

The Public Safety Chapter of the General Plan provides numerous protection measures to prevent against hazards to public safety, including hazardous materials, flooding, seismic conditions, crime,

wildland fires, and noise. The analysis of these hazards in the EIR concluded in a less than significant impact. Protection from hazards is provided by existing regulations, such as the Uniform Building Code, which requires the use of specific engineering and construction standards for each class of seismic hazard (page 99 of the Draft EIR). The National Pollution Discharge Elimination System provides Best Management Practices to prevent erosion. In addition, the City requires geological and geotechnical investigations of all new development in seismic and geologic hazard areas (page 99 of the Draft EIR). As stated on page 104 of the Draft EIR, the Orange County Fire Authority has established guidelines for minimum procedures to mitigate the hazard posed by high concentrations of methane gases in oil and gas seepage zones. Development will be required to comply with Brea Fire Code regulations and the City limits development in flood-prone areas.

Response 9-2

Information regarding the Chino Hills State Park General Plan has been added to the Project Description under Relationship to Local and Regional Plans on page 11 of the Final EIR.

Response 9-3

See Response 8-3.

Response 9-4

As a matter of practice, the City coordinates with the State Department of Parks and Recreation (DRP) as appropriate for projects that could affect DRP lands. This information has been added to page 85 of the Final EIR for clarification.

Response 9-5

Urban/wildland boundaries exist both east and west of Olinda Ranch and Olinda Village. See Responses 5-3 and 5-4 regarding wildlife movement corridors and vehicle-wildlife collisions.

A mitigation fund represents one option of financing acquisition of land for crossings, habitat preservation, and other uses beneficial to wildlife. Other options include those identified in the General Plan (Policy CD-7.1) and the EIR:

> Policy CD-7.1 Aggressively pursue methods to preserve open space and natural habitat, including but not limited to:
>
> 1) Negotiating with property owners during the development process
> 2) Regulating preservation of ridgelines and hillsides
> 3) Acquiring private lands using City funds, grants, bonds, or assessment districts
> 4) Mitigation banking
> 5) Transfer of development rights

The City will pursue these options and others as may be appropriate to achieve General Plan goals.

Response 9-6

Under California law, the General Plan sits atop the hierarchy of planning documents. General Plans set forth broad-based policy direction that is implemented through more specific regulations

such as the zoning and subdivision ordinances. Following adoption of the General Plan, the City intends to rezone properties as necessary to ensure consistency with the General Plan and to revise the Hillside Development Ordinance.

Response 9-7

The City frequently coordinates with surrounding jurisdictions to achieve common goals. Policy CR-8.2 in the Community Resources Chapter states "Cooperate with regional agencies and authorities with similar goals in protecting and enhancing wildlife and animal movement corridors."

Response 9-8

The commentor's opinion is acknowledged. See Response 9-6.

Response 9-9

Current City development practices and regulations require the establishment of vegetative buffer zones with a development project.

Response 9-10

The commentor's support for Alternative 3 is acknowledged.

As stated on page 144 of the Final EIR, compact development would not be possible under Alternative 3. Although much less development would occur in the hillsides, this development would be dispersed. Additional roads would be required to access disperse development, which would result in environmental impacts similar to those associated with the proposed project.

10. David W. Ludwin, P.E., Director of Engineering, Orange County Sanitation District. March 19, 2003.

Response 10-1

The comment states that the proposed land use modifications in the General Plan do not appear to have an impact on the Orange County Sanitation District's Master Plan of capital improvement projects. This information has been added to pages 122-123 of the Final EIR.

11. Karen A Goebel, Assistant Field Supervisors, U. S. Fish and Wildlife Service. March 20, 2003.

Response 11-1

Please refer to Responses 5-3 and 5-4. The General Plan (Community Resources Element, pages 4-27 to 4-35) acknowledges the importance of the canyons for wildlife movement. Specific information regarding Carbon Canyon has been added to the EIR on page 85.

The General Plan does not propose any new development projects. Development projects proposed pursuant to adopted General Plan policy will be required to comply with the land use policies. Each development proposal will be subject to project-specific environmental review. Development projects proposed prior to the adoption of the General Plan, such as the Canyon Crest project, have the option of complying with the existing General Plan.

The comment that the entire Carbon Canyon Specific Plan area should be designated Hillside Residential is acknowledged. This is a General Plan issue and will be addressed through the General Plan public hearing process.

The recommendation that wildlife undercrossings should be provided along Carbon Canyon Road is acknowledged. General Plan Policy CR-8.2 is to provide adequate wildlife crossings where roadways have severed habitat. As stated on page 85 of the Final EIR, action programs of the General Plan call for the City to require development proposals, particularly in the sphere of influence and hillside areas, to preserve, restore, and enhance existing wildlife corridors, habitat, and roadway crossings.

Response 11-2

See Responses 5-3 and 5-4. The comment that restoration of Tonner Creek and the surrounding upland habitat is recommended is acknowledged. General Plan Policy CR-9.3 calls for the preservation and restoration of habitat value of creek corridors through the preservation of native plants and the replacement of invasive, non-native plants with native plants (see page 83 of the Final EIR).

Response 11-3

Updated information from this comment is included in the Final EIR on pages 81-82. The preservation and restoration of open space areas is of primary importance in the General Plan (see pages 83-84 of the Final EIR). However, the General Plan does not propose any new development projects per se. Individual development projects proposed pursuant to the General Plan will be required to comply with General Plan policies. Development proposals will be required to preserve, restore, and enhance existing wildlife corridors, habitat, and roadways crossings. The following mitigation measures will be required for projects within sensitive plant communities and wildlife corridors and/or for projects containing sensitive wildlife species (see pages 85-86 of the Final EIR):

1. Retention of rare communities shall be incorporated into building and project design to the maximum extent practical. Rare communities include oak, riparian and wetland, walnut

woodland, and coastal sage scrub. If retention is not practical, healthy specimens shall be relocated and/or replaced.

2. Developers will be required to restore and re-vegetate where the loss of small and/or isolated habitat patches is proposed.

3. If construction activity is timed to occur during the nesting season (typically between March 1 and July 1), developers will be required to provide focused surveys for nesting birds pursuant to California Department of Fish and Game requirements. Such surveys shall identify avoidance measures taken to protect active nests.

4. Removal of nonnative trees shall be permitted only outside the nesting season.

5. Any crushing of existing habitat during the breeding season of the gnatcatcher shall occur only under the supervision of a biological monitor.

6. Preserved and/or protected areas will be identified by the project biologist and isolated with construction fencing or similar materials prior to clearing or grading activities. Protected areas include existing woodland and coastal sage scrub adjacent to revegetation areas and individual trees and patches of native habitat to be preserved within revegetation areas.

Additional mitigation measures will be applied at the project level to address the specific biological concerns of development pursuant to the adoption of the General Plan.

Response 11-4

As stated on page 85 of the Final EIR, detailed biological assessments will be required of individual development projects to determine if sensitive plant communities, sensitive wildlife species, and wildlife corridors are present.

12. Timothy Neely, Manager, Environmental Planning Services Division, County of Orange Planning and Development Services Department. March 21, 2003.

Response 12-1

As stated on page 113 of the Final EIR, the Initial Study analysis indicated that impact on water quality standards will not be significant. The Initial Study, Appendix A of the Draft EIR, states that all new development will be required to comply with existing water quality standards and waste discharge regulations set forth by the Regional Water Quality Control Board, Santa Ana region. The General Plan does not propose any development projects. Development projects proposed after the adoption of the General Plan will require an assessment of the environmental impacts of the development in compliance with CEQA and applicable water quality standards, including surface water quality impacts of the project from construction activities, long-term runoff impacts, pesticides and fertilizers applied to landscaping.

Response 12-2

The General Plan does not propose any development project. Development projects proposed after adoption of the General Plan will require an assessment of the environmental impacts of the development in compliance with CEQA. At that time, the project applicant will be required to asses the impacts of the development project on the storm drainage system from the increased runoff generated by additional impervious surface area. As stated on page 117 of the Final EIR, the General Plan contains goals and policies to prevent impacts on the storm drainage system and flooding in downstream waters, including the following:

Goal PS-7 Reduce the risk to the community from flooding hazards.

Policy PS-7.1 Cooperate and work with the Orange County Flood Control District to ensure District flood control facilities are well maintained and capable of accommodating, at a minimum, 100-year storm flows.

Policy PS-7.2 Require that new developments minimize stormwater and urban runoff into drainage facilities by incorporating design features such as detention basins, on-site water features, or other strategies.

Policy PS-7.3 Maintain an active storm drain inspection program.

Policy PS-7.4 Protect critical facilities located within areas subject to flooding.

Implementation of the General Plan will not put structures at risk of flooding or inundation.

Response 12-3

As stated on page 113 of the Final EIR, issues of water supply are addressed in Section 3.11, Utilities/Service Systems. As stated on page 119 of the EIR (in Section 3.11, Utilities/Service Systems), the City purchases all of its water supply from two water wholesale agencies: Metropolitan Water District (MWD) and California Domestic Water Company (CDWC). The La Habra Groundwater Basin is located beneath Brea, but the water quality in the basin is poor and

would require treatment and blending with higher quality water to meet the State's public health standards. Therefore, the General Plan will not result in additional pumping of groundwater. The City intends to rely on its current water wholesale agencies to supply the projected increase in population during the planning period. Therefore, there is no potential to deplete groundwater supplies. The General Plan does not propose any development projects. Project-specific mitigation to prevent groundwater depletion and to provide groundwater recharge will be applied to individual development projects in accordance with federal, State, and local regulations.

Response 12-4

The Initial Study (Appendix A, page 11) indicates that development pursuant to the General Plan may result in the alteration of blueline streams. However, the General Plan does not propose any new development project. Project-specific mitigation will be applied to individual development projects that propose to alter blueline streams in accordance with applicable federal, State, and local regulations. Increased stormwater runoff is addressed in the EIR and discussed further in Response 12-2.

Response 12-5

The information that Carbon Canyon Regional Park is 125 acres, not the 124 acres indicated on page 135 of the Draft EIR, has been added to the Final EIR on page 137. No further response is required.

Response 12-6

The information provided in the comment regarding the County's Master Plan of Regional Riding and Hiking Trails has been added to the Recreation section on page 135 of the Final EIR. The General Plan contains a number of goals and policies related to the provision of trails, as provided on pages 4-24 through 4-26 in the Community Resources Chapter of the General Plan. Specifically, Policy CR-6.5 calls for the coordination of efforts with other public agencies regarding State and federal programs for existing and potential trail systems, recreational facilities, and recreation programs.

Response 12-7

The commentor's opinion is acknowledged. Figure CR-2 on page 4-21 in the Community Resources Chapter of the General Plan contains a map of the trails network. No response is required.

Response 12-8

The commentor's opinion is acknowledged. This comment applies to the General Plan. Any concerns the commentor may have regarding the General Plan should be expressed to the Planning Commission and City Council at public hearings scheduled for the General Plan. No response is required.

Response 12-9

The commentor's opinion is acknowledged. Figure CD-9 on page 2-53 in the Community Development Chapter of the General Plan includes the City's bike plan. The General Plan contains goals and policies to provide an integrated network of bikeways to augment the Circulation Element, including the following:

Policy CD-10.3	Plan neighborhood streets, pedestrian walks, and bicycle paths as a system of fully connected routes throughout the City.
Policy CD-11.6	Balance accommodations for automobiles, transit, bicycles, and pedestrians in the design of new streets and landscape improvements.
Goal CD-12	Provide for an extensive, integrated, and safe bicycle, hiking and pedestrian network throughout the community, and make Brea a pedestrian-friendly community.
Policy CD-12-1	Develop and maintain a comprehensive and integrated system of bikeways that promote bicycle riding for commuting and recreation.
Policy CD-12.3	Establish the Birch Street corridor between Downtown Brea and the Civic and Cultural Center/Brea Mall as a pedestrian and bicycle-friendly travel way.
Policy CD-12.4	Require new developments to provide for the use of alternative modes of transit via internal trails and travel ways – public or private – for pedestrians and other vehicles other than cars. New developments shall include such features as well-designed sidewalks and parkways, bike lanes and paths, and dedicated bus turn-outs.

Response 12-10

The appropriate revision to the title of the OCTA Bikeways Strategic Plan has been made on page 27 of the Final EIR. No further response is required.

13. Gary Watts, District Superintendent, California Department of Parks and Recreation Inland Empire District. March 21, 2003.

Response 13-1

The General Plan does not propose any development project. The City is very aware of and sensitive to the concerns for sensitive environmental resources found in Soquel and Carbon Canyons, as well as other areas throughout the Planning Area. The City has included the following policies and implementation programs in the Plan to reflect this sensitivity.

Goal CR-9 **Preserve and maintain open space, natural habitat, and vegetation communities that support wildlife species and animals.**

Policy CR-9.1 Support regional and sub-regional efforts to acquire, develop, operate, and maintain an open space system extending from the Puente Hills to the Chino Hills.

Policy CR-9.3 Preserve and restore the habitat value of creek corridors through the preservation of native plants and the replacement of invasive, non-native plants with native plants.

Policy CR-9.4 Protect sensitive plant species resources from the impacts of development.

Policy CR-9.5 Manage areas of diverse wildlife habitat as a natural resource and prevent major destruction or disruption.

Policy CR-9.6 Use specific management programs using sound ecological principles and professionally accepted methods are necessary to protect and restore sensitive animal populations and their habitats.

Goal CR-4 **Preserve open space aggressively for diverse purposes – as a visual and scenic resource, for habitat conservation, to protect watersheds, and for recreation.**

Policy CR-4.1 Protect and preserve open space wherever possible.

Policy CR-4.2 Select areas for open space preservation using an evaluation system that incorporates the following selection criteria: connectivity, access/recreations, sensitive areas, natural features, subdivision pattern, and buffer zones.

Policy CR-4.3 Work aggressively with the Orange County, Los Angeles County, State, and other appropriate public agencies, private entities, and landowners to conserve, protect, and enhance open spaces and natural resources, particularly within the sphere of influence.

Goal CR-5 **Provide a flexible and balanced open space and conservation plan.**

Policy CR-5.3 Develop and maintain strong relationships with local and regional environmental and conservation organizations.

These policies and programs are designed to provide the flexibility to apply specific stringent mitigation measures to projects regarding habitat conservation and preservation, wildlife migration, and wildlife roadway crossings to specific development projects at the time the development is proposed. These policies and programs are also intended to severely limit development in areas of biological sensitivity, such as the canyons, measures which are not afforded as strictly under the existing General Plan.

A discussion of the Chino Hills State Park General Plan is provided on page 11 of the Final EIR in the Project Description under Relationship to Local and Regional Plans.

The commentor's opinion about the appropriateness of land use designation is acknowledged. This is a General Plan issue and will be addressed through the General Plan public hearing process.

Response 13-2

See Response 13-2 above regarding the inclusion of the Chino Hills State Park General Plan in the Project Description on page 11 of the Final EIR.

The General Plan does not propose any development project. Project developed after adoption of the General Plan in areas adjacent to Chino Hills State Park will be required to consider the impact on core habitat and consider buffers as part of project-specific mitigation in compliance with CEQA. As stated on page 82 of the Draft EIR, the majority of impacts to sensitive vegetation communities and wildlife species will occur as a result of project-specific activities developed pursuant to the General Plan. At the time individual development applications are submitted, the City will assess development proposals for potential impacts to significant natural resources pursuant to CEQA and associated State and federal regulations. Appropriate mitigation will be required for all significant impacts if impact avoidance is not possible.

Response 13-3

As a matter of practice, the City coordinates with the State Department of Parks and Recreation (DRP) as appropriate for projects that could affect DRP lands. This information has been added to page 85 of the Final EIR for clarification.

Response 13-4

See Response 13-2. The General Plan does not propose any development project. Development projects proposed after adoption of the General Plan and approval of the HCP for the Northern Subregion of the NCCP program will be required to assess the consistency of the proposed development project with the HCP, as well as comply with all federal, State, and local regulations pertaining to sensitive species.

Response 13-5

The purpose of the EIR is to assess the environmental impacts associated with adoption and implementation of the proposed General Plan update program. Analysis of the low-density land use

designations is provided in Section 4.0, Alternatives to the Project, beginning on page 139 of the Draft EIR. Alternative 3: Reduced Density for Hillside Development presents the environmental impacts associated with limited hillside residential development to 1 unit per 20-acre parcel. The analysis of this alternative concluded that limiting Hillside Residential development will reduce significant air quality impacts associated with the proposed General Plan land use policy but will not reduce or minimize to a less than significant level impacts on biological resources.

The commentor's opinion about land use policy is acknowledged. This is a General Plan issue and will be addressed through the General Plan public hearing process.

Response 13-6

The accuracy of the Land Use Map is a General Plan issue and will be addressed through the General Plan public hearing process.

Response 13-7

The commentor's recommendation to use lower density land use designations as a means of reducing transportation-related impacts in the Carbon Canyon Specific Plan Area is acknowledged. As indicated in the traffic study for the General Plan, Carbon Canyon Road between Valencia Avenue and the eastern edge of the City currently carries traffic volumes (19,000 ADT) that are close to the capacity (20,000 ADT) of this 2-lane facility. As stated on page 33 of the Draft EIR, this is because Carbon Canyon Road serves as a commuter route from San Bernardino County into Orange and Los Angeles counties. The additional traffic volumes projected for this roadway are primarily from commuter traffic. Traffic resulting from development in the Carbon Canyon Specific Plan area is expected to generate minimal additional trips compared to commuter demand. Thus, limiting the density of development in the hillsides will not reduce the future traffic volumes anticipated for Carbon Canyon Road such that the impact would be reduced or minimized to a less than significant level.

Response 13-8

See Response 13-1 and 13-2. The General Plan does not propose any development project. The discussion of sensitive plant and animal species in Section 3.5, Biological Resources, of the EIR is intended to show the variety and diversity of species found or expected to be found within the Planning Area. This is not a comprehensive survey of the biological resources found within Brea and the sphere of influence. As stated on page 82 of the Draft EIR, development projects proposed pursuant to adoption of the General Plan will require an assessment of the potential impacts of the project to significant natural resources pursuant to CEQA and associated State and federal regulations. Appropriate mitigation will be required for all significant impacts if impact avoidance is not possible.

Response 13-9

See Response 5-3 for a discussion of wildlife corridors and wildlife crossings.

Response 13-10

The commentor's opinion on open space preservation is acknowledged. This is a General Plan issue and will be addressed in the General Plan public hearing process.

Response 13-11

The commentor's opinion in support of Goals CR-4, CR-5, CR-8, and CR-9 is acknowledged. No response is required.

Response 13-12

See Responses 13-1 and 13-2 and Response 5-3 for a discussion of project-specific impacts on rare plant communities, lands adjacent to State Parks, and wildlife corridors.

Response 13-13

Mitigation measures on page 83 of the Draft EIR call for the retention of rare communities as part of building and project design. This measure implies that a survey of rare communities will be conducted in order to determine their presence. Mitigation measures state that if construction activity is timed to occur during the nesting season (typically between March 1 and July 1), developers will be required to provide focused surveys for nesting birds pursuant to California Department of Fish and Game requirements. This measure does not state the dates of nesting seasons, recognizing that the nesting season can exceed July 1 for some species.

Response 13-14

General Plan policy encourages and facilitates infill development within Brea's urban areas to protect hillside scenic resources to the maximum extent possible. As stated on pages 86-87 of the Draft EIR, the Community Development and Community Resources chapters include the following measures to protect scenic resources:

Goal CD-6 Create an environment in Carbon Canyon that balances the community's long-term housing needs with community open space, habitat conservation, and public safety goals.

Policy CD-6.1 Base allowable development on the ability of infrastructure, landforms, physical constraints, and emergency response capabilities to support new development.

Policy CD-6.3 Allow and encourage clustering of housing as a means of protecting resources.

Policy CD-6.4 Require that development preserve prominent landforms consistent with the City's hillside management ordinance.

Policy CD-6.7 Consider establishing a transfer of development rights (TDR) ordinance that would apply to Carbon Canyon as a means of preserving sensitive hillside areas.

Goal CD-7 **Minimize the extent of urban development in the hillsides, and mitigate any adverse consequences associated with urbanization.**

Policy CD-7.2 Base allowable development on the ability of infrastructure, landform, physical constraints, and emergency response capabilities to support new development.

Policy CD-7.7 Work closely with the County of Orange and emphasize the City's need to participate in the development review process of projects proposed in surrounding unincorporated areas. Work to ensure that such developments proceed consistent with City standards.

Goal CR-10 **Pursue aggressively the preservation and protection of scenic resources.**

Policy CR-10.1 Create and enforce special standards for development occurring within potential scenic highway corridors.

Policy CR-10.2 Identify streets with unique man-made or natural characteristics for special consideration as scenic routes.

Policy CR-10.3 Manage stands of mature trees, particularly native species, as unique and visual resources.

Policy CR-10.4 Preserve major rock outcroppings as unique landmarks and visual resources to the maximum extent possible.

Policy CR-10.5 Preserve stream courses in their natural state as they represent a recreation resource, provide community identity, and serve as unifying corridors in the planning area.

Policy CR-10.6 Work aggressively with Orange County, Los Angeles County, State, and other appropriate public agencies, private entities and landowners to conserve, protect, and enhance natural resources, particularly within the sphere of influence.

Individual development projects will require an assessment of their impacts on scenic resources, and mitigation measures must be provided to minimize the impact where avoidance is not possible.

The commentor's opinion on the land use density is a General Plan issue and will be addressed through the General Plan public hearing process.

Response 13-15

The revision of policy PS-6.2 to include native, non-invasive plants is a General Plan issue and will be addressed through the General Plan public hearing process.

Response 13-16

The General Plan does not propose any development project. Development projects proposed after adoption of the General Plan will require an assessment of the impact of the proposed project on cultural and historic resources, in compliance with CEQA regulations. The General Plan does not contain specific goals and policies that address archaeological and paleontological resources because protection is afforded under the CEQA review process.

The General Plan language regarding cultural resource preservation provided by the commentor is acknowledged. This is a General Plan issue and it will be addressed through the General Plan public hearing process.

Response 13-17

The purpose of the EIR is not to provide goals and policies. This is a General Plan issue that will be addressed through the General Plan public hearing process.

Figure CR-2 on page 4-21 in the Community Resources Chapter of the General Plan contains a map of the trails network envisioned by the City. In a continuing cooperative effort between the City and DRP, the City will work with DRP to ensure that there is no potential for unauthorized trails and access points leading to Chino Hills State Park.

Implementation the General Plan will result in new development and population growth in the Planning Area. Increased population is expected to increase the demand for parks and recreational opportunities. Therefore, the General Plan contains extensive goals and policies to meet these needs, including the following**:**

Goal CR-1 Provide a variety of parks and recreation facilities that meet the diverse needs and interests of the community.

Policy CR-1.1 Develop a high-quality network of parks and recreational facilities that meet the needs of families, young adults, seniors, children, and disabled individuals.

Policy CR-1.2 Provide similar or equal levels of parks and recreational facilities to all areas of the community.

Policy CR-1.3 Use the following as standards for park development, recognizing that the function of a particular park also affects classification within the system:

Type of Park	Size and Service Area
Smaller green spaces in urban areas (mini, tot lots, and/or pocket parks)	0.5 to 5 acres, with a ¼ mile service area radius in residential setting
Neighborhood Park	5-10 acres, with a ¼- to ½-mile service area radius
Community or Sports Park	20-50+ acres, with a ½- to three- mile service area radius
Regional Park	50 acres or larger

Policy CR-1.4 Incorporate into large-scale residential developments small neighborhood parks and greens suitable for unstructured play and passive recreation.

Policy CR-1.6 Provide similar or equal attention to the development of facilities for individualized activities (casual park use, bicycling, walking, running, skating and riding) as is given to organized recreation and sports.

Goal CR-2 Protect and preserve existing parks and recreation facilities.

Policy CR-2.1 Protect existing public parks and open space areas from non-recreational uses.

Policy CR-2.2 Ensure that sports facilities for organized sports do not displace existing casual use facilities and parks.

Goal CR-3 Maximize use of open space areas capable of supporting park-type activities.

Policy CR-3.1 Maximize use of available facilities through careful scheduling.

Policy CR-3.2 Continue the school/park joint use concept for increased recreational resources and year-round use of these facilities.

Policy CR-3.3 Use Carbon Canyon Regional Park, Craig Regional Park, and Army Corps of Engineer properties to satisfy some of the City's recreational demands, particularly as they pertain to facilities that require large, relatively level land, such as sports park fields.

Policy CR-3.4 Explore the recreational potential of publicly owned lands and utility rights-of-way.

Policy CR-3.5 Coordinate efforts with other public agencies regarding State and federal programs for existing and potential trail systems, recreational facilities, and recreation programs.

Policy CR-3.6 Encourage the development of recreational facilities by the private sector, including small parks and large-scale facilities requiring a high level of supporting services, supplies, and maintenance. Recreational facilities should be available to all members of the public.

Policy CR-3.7 Develop parks and recreation facilities in a manner that ensures that a minimum of damage to the environment occurs, while still providing a high quality recreation experience.

To accommodate the increased demand for parks and recreational opportunities, the City intends to maintain its standard to provide 5 acres of park space per 1,000 residents. This will be accomplished by encouraging new development projects to provide parkland or fees per the City's standards.

Response 13-18

As stated on pages 141-142 of the Draft EIR, reduced density for hillside development under Alternative 3 could lead to additional impacts to sensitive biological species because development would be very dispersed throughout the hillsides. The purpose of the Hillside Residential land use designation is to restrict development to those areas that are less constrained by landform, seismic conditions, and sensitive plant and wildlife communities. In these areas deemed appropriate for development, higher density development would be permitted. This clustered development will minimize impact on biological resources by minimizing the number and extent of new roads in the hillsides and allowing for the protection and preservation of large open space areas. Development under Alternative 3 could lead to one roadway every 20 acres to reach the 120 development sites that would be permitted in the hillsides. Numerous roads would segregate habitat communities and increase the "edge effect" on sensitive plant habitats. These impacts would not be expected if development could be clustered near existing roadways and the remainder of the land deemed unsuitable for development preserved as open space.

14. Michael E. Balsamo, Director of Governmental Affairs, Building Industry Association of Southern California. March 24, 2003.

Response 14-1

See Responses 3-2. The General Plan recommends deleting some facilities from the MPAH and downgrading other facilities. The City of Brea is in negotiations with the OCTA to make these changes to OCTA's MPAH. These changes are dependent on this cooperative process with OCTA. Therefore, the Circulation Map will retain these facilities as indicated on the MPAH until such time as the cooperative process with OCTA has concluded.

Response 14-2

See Response 8-1. As stated on page 125 of the Final EIR, new residential development will increase the housing stock to a total of 19,079 units. The General Plan transfers housing density from sensitive, constrained, and difficult-to-serve hillside areas to residential development opportunities in the proposed mixed-use areas. The General Plan creates additional housing development opportunities on lands that were previously zoned only for commercial uses. The mixed-use designations provide for higher density housing development in areas close to services and jobs and where adequate infrastructure is available.

APPENDICES

NOTICE OF PREPARATION

To: _____
(Agency)

_____
(Address)

_____

Subject: Notice of Preparation of Environmental Impact Report

Lead Agency: City of Brea
Development Services Department
1 Civic Center Circle
Brea, CA 92821

Contact: Karen Haluza, AICP, Senior Planner
(714) 990-7674
karenh@ci.brea.ca.us

The City of Brea will be the Lead Agency and will prepare an environmental impact report for the project identified below. The City needs to know the views of your agency as to the scope and content of the environmental information germane to your agency's statutory responsibilities with respect to the proposed project. Your agency may need to use the EIR prepared by the City when considering issuance of permits or other approvals. If you represent a non-government organization, the City is interested in knowing your views regarding potential project effects.

The project description, location, and the potential environmental effects are set forth in the attached Initial Study.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice.

Please send your response to Senior Planner Karen Haluza, AICP at the address shown above. Please provide the name for a contact person in your agency.

Project Title: City of Brea Comprehensive General Plan Update

Project Location: City of Brea and surrounding sphere of influence, Orange County, CA

Project Description: See attached Initial Study

_____ _____
(Date) (Signature)

_____
(Title) (Telephone)

Initial Study

BREA GENERAL PLAN

May, 2002

Lead Agency:
City of Brea
Civic and Cultural Center
1 Civic Center Drive
Brea, CA 92821

Contact:
Karen A. Haluza, AICP, Senior Planner
Development Services Department

Consultant to the City:
Cotton/Bridges/Associates
A Division of P&D Consultants
Urban Planning and Environmental Consulting
747 E. Green Street, Suite 300
Pasadena, CA 91101

1290.00

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Project Description

The Project

The proposed project is the adoption and implementation of the City of Brea General Plan, referred to herein as the Draft General Plan. The Draft General Plan chapter structure addresses the seven State-mandated elements (land use, housing, circulation, safety, open space, conservation and noise) and the Orange County-mandated growth management element, as well as additional issues not required by State law, which are nonetheless important to the community. The Implementation Program provides strategies to implement the adopted policies set forth in each of the General Plan chapters.

The Brea General Plan establishes a vision for the community, emphasizing Brea's desire to preserve and build upon those characteristics that distinguish the City: its diverse residential neighborhoods, a range of commercial and industrial business opportunities, a commitment to high levels of public services, quality parks, unique cultural arts programs, and hillside resources that provide habitat and scenic qualities. With this vision in mind, the General Plan contains goals and policies that will guide long-term land use decision-making. The General Plan establishes overall development capacity for the City and defines the infrastructure, public safety, community service, and other physical improvements and resources needed to support the land use plan.

The Draft General Plan has not yet been completed. This Initial Study has been prepared to identify key features of the Plan and to provide the public with the opportunity to comment on potential environmental effects that may be associated with Plan adoption and implementation. Through this process, the City may be able to address some public concerns in the Draft General Plan, rather than through mitigation measures in an environmental impact report (EIR). The analysis presented in this Initial Study indicates that the updated General Plan has the potential to result in significant environmental effects. Thus, an EIR will be prepared to examine those issues identified herein.

Regional Setting

Figure 1 identifies Brea's location in a regional context, and Figure 2 shows the local vicinity and project boundaries. The Brea corporate limits encompass approximately 11 square miles of land (6,946 acres) in north Orange County. Located near the Puente Hills and Chino Hills, the topography includes several ridgelines and canyons. The community is divided by the Orange Freeway (State Route 57), which extends to the north, connecting to Los Angeles County, and to the south connecting to Fullerton, Placentia and Orange. Imperial Highway (State Route 90) traverses the southwest portion of Brea. The City is bordered by unincorporated Orange County land and Los Angeles County to the north; unincorporated Orange County land, Chino Hills State Park and San Bernardino County to the east; the cities of Yorba Linda, Placentia and Fullerton to the south; and the city of La Habra to the west.

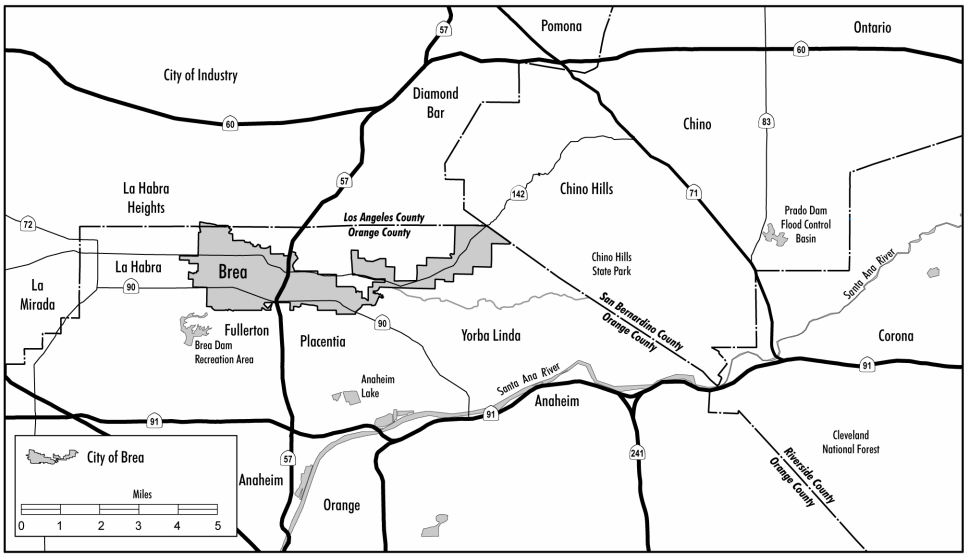


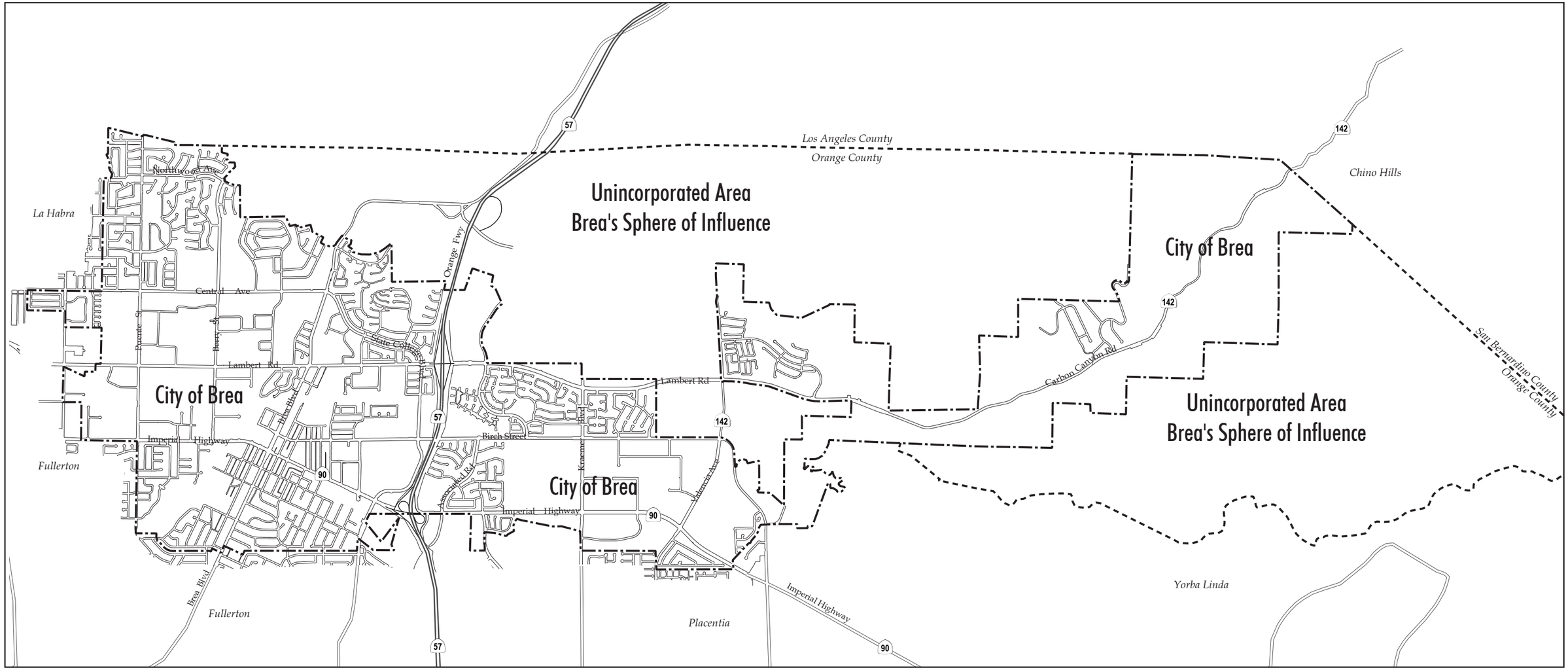
Figure 1
Regional Setting

Planning Area

Figure 2 shows the planning area addressed by the Draft General Plan, which includes the City and its sphere of influence (SOI). Altogether, the planning area includes about 14,734 acres (23 square miles). The SOI includes 7,788 acres that extend to the Los Angeles and San Bernardino County boundaries. Land uses within the SOI include Chino Hills State Park, the Orange County Olinda Alpha Landfill, active oil production, the Orange County Reservoir, a portion of Carbon Canyon Dam, and vacant land.

Purpose and Objectives of the General Plan

A General Plan serves as the blueprint for future growth and development. As a blueprint for the future, the Plan must contain policies and programs designed to provide decision-makers with a solid basis for decisions related to land use and development. The Draft General Plan is founded upon the community's vision for Brea and expresses the community's long-term goals. Building on the unique history of Brea, the General Plan includes the following key issues identified by the community as important for the future:



Brea's Planning Area

- City Boundary
- Sphere of Influence

0 3,000 6,000 9,000 12,000 Feet

0 0.5 1 1.5 2 Miles

BREA GENERAL PLAN

Figure 2
Planning Area

- Preserve the hillsides for wildlife, scenic resources, and recreation purposes
- Continue to provide opportunities for mixed-use development
- Enhance mobility and circulation
- Provide an interconnecting network of sidewalks and trails
- Enhance local transit service
- Preserve the unique qualities that distinguish Brea
- Continue to provide diverse recreation opportunities
- Establish a strong urban design image citywide
- Conserve and protect water resources
- Utilize the Hartley Research Center property for diverse activities
- Continue to make safety a community priority
- Sustain arts and cultural programs
- Meet the needs of seniors and youth
- Plan for all members of the community

Project Characteristics

Plan Chapters (Elements)

The Draft General Plan consists of chapters that altogether fulfill State law requirements for seven major elements related to planning. In addition to the State-mandated elements, Orange County Measure M required cities to prepare a growth management element to address timely provision of capital facilities and public services associated with new development. Beyond the State- and County-mandated elements, the Draft General Plan addresses issues unique to Brea, such as cultural arts, recreation programs, and human services. Each chapter sets forth goals and related policies for each planning issue. Table 1 shows how the structure of the Plan corresponds to the mandated and optional elements defined by the State and County.

Table 1
Mandated and Optional Elements of the Brea General Plan

General Plan Elements	Brea General Plan Chapters					
	Community Development	Housing	Community Resources	Public Safety	Community Services	Growth Management
Mandated Elements						
Land Use	T					
Housing		T				
Circulation	T					
Safety				T		
Open Space			T			
Conservation			T			
Noise				T		
Optional Elements						
Economic Development	T					
Urban Design	T					
Growth Management						T
Historic Resources			T			
Cultural Arts					T	
Parks, Recreation & Human Services					T	

Community Development Chapter

In terms of guiding the physical development of the City, the General Plan components of most importance are the Land Use and Circulation components, both contained in the Community Development chapter of the Draft General Plan. In the Community Development chapter, the Land Use section establishes the various land uses and intensity of both public and private land within the community, providing a guide for both new development and preservation of important community features. The Draft General Plan establishes several land use designations. These designations provide a rational and ordered approach to development and maintenance of open space by identifying the types and nature of development permitted throughout the planning area. The General Plan land use designations are grouped into residential and non-residential categories. The residential categories are: Hillside, Low Density, Medium Density, and High Density Residential. The non-residential categories include: Regional Commercial, General Commercial, Neighborhood Commercial, Office/Financial, Light Industrial, General Industrial, Public Facilities, Parks/Recreation, and Open Space. The Plan introduces the following new land use designations: Mixed Use I, Mixed Use II, Natural Open Space, Agriculture, Cemetery, and Commercial Recreation.

The Circulation section addresses needed improvements to the existing transportation system, including roadways, transit, and pedestrian and bicycle paths, to meet increased demands over the next 20 years. Draft policies point toward cooperation with other jurisdictions to improve circulation on Imperial Highway and the 57 Freeway.

The Economic Development section addresses enhancing Brea's already solid economic base. Key concepts put forward include 1) providing balanced employment and housing opportunities; 2) attracting and retaining businesses; and 3) promoting fiscal strength and stability.

One important aspect of community vitality is a sense of place. The Urban Design component identifies ways to unify the City through architectural treatments, landscaping, streetscapes and signage. In addition to enhancing the character of Brea, these design features help promote pedestrian safety.

The Community Development chapter recognizes a strong public education system as a cornerstone of the community's foundation. The Education section emphasizes cooperative City/school district initiatives to further enhance the district's service to the community.

Housing Chapter

In 2000, the Brea City Council adopted an updated Housing Element in compliance with the State's deadline for the SCAG region. The current element will be incorporated in its entirety into the Draft General Plan with only minor formatting changes to match the new document.

Community Resources Chapter

This chapter focuses on many of the natural resources that make Brea a unique area among urban communities in Southern California. Included in the chapter are sections that meet State mandates for the Conservation, Open Space, and optional Historic Resources elements. Conservation issues addressed include providing park lands to meet the needs of all community residents, preserving

scenic hillsides and ridgelines that form a visual backdrop to the City, maintaining water quality, and working toward improving air quality. The importance of balancing new development with the needs of wildlife will be addressed.

Given the rich history of Brea as a pre-historic settlement area, and later, a successful oil town, the Historic Resources section includes policies to recognize important buildings and places and to preserve historic neighborhoods.

Public Safety Chapter

The Public Safety Chapter identifies and addresses physical and human-made conditions within or near the City that represent a potential danger to residents, structures, public facilities, and infrastructure. The chapter establishes goals, policies and plans to minimize risk associated with crime, air pollution, hazardous materials, geologic conditions, seismicity, flooding, and fires. Emergency preparedness planning, such as identifying actions needed to manage crisis situations, is also addressed.

Community noise also is considered a public safety issue, and this chapter identifies noise sources in the community and examines ways to minimize the effects and extent of noise within Brea. This chapter identifies noise standards and land use compatibility guidelines to protect noise sensitive land uses from excessive noise.

Community Services Chapter

Brea has an extensive community services system that offers residents many enrichment and basic needs programs. This chapter describes how this system will continue over the next 20 years. Key issues addressed include the cultural arts, recreation programs, libraries and human services, with a special emphasis on serving the youth and elderly of the community.

Growth Management Chapter

The purpose of growth management is to ensure that the transportation system and other pubic facilities are adequate to meet the current and projected needs of Brea over the next 20 years. This chapter looks at ways to provide public services commensurate with the demand of new development, providing a balance between jobs and housing in the Planning Area, and coordinating with other public agencies to address regional growth issues.

Implementation Program

The General Plan includes an Implementation Program that provides staff and City decision-makers with choices for translating each General Plan element to specific actions. The recommended actions will serve as a basis for making future programming decisions related to the assignment of staff and the expenditure of City funds. The Implementation Program identifies individual program responsibility, funding sources, and time frame for completion.

Initial Study

1. **Project title:** Brea General Plan

2. **Lead agency name and address:** City of Brea Planning Division, 1 Civic Center Circle, Brea, CA 92821

3. **Contact person and phone number:** Karen A. Haluza, AICP, Senior Planner, City of Brea Planning Division, (714) 990-7674

4. **Project location:** City of Brea, northeastern Orange County

5. **Project sponsor's name and address:** Same as Number 2 above

6. **General Plan designation:** Not applicable

7. **Zoning:** Not applicable

8. **Description of project:** The project is the adoption and implementation of an update to the Brea General Plan. For a more detailed project description, please see the project description preceding this checklist

9. **Surrounding land uses and setting:** The Planning Area is located in north Orange County near the Puente and Chino Hills. The Planning Area is bounded by unincorporated County land and the Los Angeles County boundary to the north; unincorporated County land, Chino Hills State Park and the San Bernardino County boundary to the east; the cities of Yorba Linda, Placentia and Fullerton to the south; and the city of La Habra to the west.

9. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):** None

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

: Aesthetics	9 Agriculture Resources	: Air Quality
: Biological Resources	: Cultural Resources	: Geology/Soils
: Hazards & Hazardous Materials	: Hydrology/Water Quality	: Land Use/Planning
: Mineral Resources	: Noise	: Population/Housing
: Public Services	: Recreation	: Transportation/Traffic
: Utilities/Service Systems	: Mandatory Findings of Significance	

DETERMINATION:

On the basis of this initial evaluation:

9 I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

9 I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

: I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

9 I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

9 I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: _____ _____

Karen A. Haluza, AICP, Senior Planner
City of Brea - Planning Division
1 Civic Center Circle
Brea, CA 92821
(714) 990-7674

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	:	9	9	9
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	:	9	9	9
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	:	9	9	9
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	:	9	9	9

a through c. The western portion of Brea within the incorporated boundaries is highly developed, with a few vacant infill parcels. Development within this area of the City will not substantially impact scenic resources or degrade the existing visual character of the surrounding location.

The eastern portion of the City, as well as the sphere of influence area east and west of the SR-57 freeway, is predominately undeveloped land with varying topography, including Brea, Tonner, Sonome, Soquel, and Carbon Canyons. In addition, Chino Hills State Park and Carbon Canyon Regional Park are located within the SOI. Development pursuant to the General Plan could result in changes to these scenic resources and alter the existing visual character. Carbon Canyon Road is designated on the Orange County Scenic Highways Plan as a viewscape corridor. These issues will be addressed in the EIR.

d. City review of future development proposals will help ensure that aesthetic impacts of new development anticipated to occur under the General Plan will be minimized. However, some structures may generate shadows or glare depending on the type of building materials used and /or placement of the building. The introduction of light and glare sources within the SOI is potentially significant and will be discussed in the EIR.

II. AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to a non-agricultural use?	9	9	:	9
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	9	9	:	9

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to a non-agricultural use?	9	9	9	:

a and b. Approximately 73 acres of land within Brea is used for agriculture purposes. This area, located north of Imperial Highway on the east side of Rose Drive, represents a residual agricultural use. Given its location immediately below a flood control dam, the preliminary General Plan Land Use Policy Map indicates an Agriculture designation for the property. Such a designation will preserve the existing use. Impact will be less than significant.

c. According to agricultural resource maps (2000) published by the California Resources Agency, Brea contains several properties which have been designated as either Prime Farmland or Farmland of Statewide Significance. The designations appear to reflect long-historic uses of particular properties rather than current value as farmland, as several of the so-designated properties have already been converted to urban uses. Of those vacant parcel designated Prime Farmland, the properties along Rose Drive currently support vestigial agricultural operations, and proposed General Plan policy calls for the properties to be designated *Agriculture.* The other Prime Farmland property lies within Chino Hills State Park and is proposed as open space.

Properties north and south of Lambert Road west of Valencia with a designation of Farmland of Statewide Significance support oil field operations or wholesale nurseries on historic oil properties. As none of these properties represent truly significant farmland, no impact will result.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	9	9	:	9
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	:	9	9	9
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	:	9	9	9
d) Expose sensitive receptors to substantial pollutant concentrations?	:	9	9	9
e) Create objectionable odors affecting a substantial number of people?	9	9	:	9

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a. The General Plan will include a Conservation component in the Community Resources chapter to address, among other issues, compliance with the current Air Quality Management Plan for the South Coast Air Basin. Air quality policies will be designed to ensure that City land use decisions work to implement and comply with federal, State, and local regulations pertaining to air quality. The General Plan supports the implementation of the Air Quality Management Plan. Impact is less than significant. **b through d.** Potential new development facilitated by the General Plan will generate additional vehicle trips that will produce exhaust emissions. These emissions may affect sensitive receptors, result in carbon monoxide hot spots, and contribute to regional pollutant emissions. Impact may be significant given that the South Coast Air Basin is a non-attainment area with respect to meeting federal air quality standards. Impact will be addressed in the EIR.				
e. Development anticipated to occur pursuant to the General Plan will predominantly be residential, mixed use and light industrial. Any new use will be required to comply with South Coast Air Quality Management District regarding odor control. Impact will be less than significant.				
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	:	9	9	9
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	:	9	9	9
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	:	9	9	9
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	:	9	9	9
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	:	9	9	9
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	:	9	9	9

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a through f. The Brea SOI contains more than 7,000 acres of undeveloped land with sensitive habitat and animal species. Sensitive species either known or suspected to occur in the area include California Gnatcatcher, Cooper's Hawk and Coastal Cactus Wren. Many drainage features, including Tonner Creek, within the SOI may provide riparian habitat. Some of the vacant lots in the urbanized areas of the City may provide migratory birds nesting sites. In addition, the City and SOI area are located within the Southern California Coastal Sage Scrub NCCP Region (Northern Orange County Subregion). Therefore, development of the project area facilitated by the implementation of the General Plan may result in a potentially significant impact. This issue will be examined in the EIR.				
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	9	9	:	9
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	9	:	9	9
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	9	:	9	9
d) Disturb any human remains, including those interred outside of formal cemeteries?	9	:	9	9
a. The General Plan will reflect the rich history of Brea by including a Historic Resources component in the Community Resources chapter. Goals and policies will focus on ways that the City can continue to preserve the many buildings and resources from the different development stages of the area, including the Mission Period, oil exploration, and citrus production. The policies and Implementation Programs will address the conservation of these historic resources. Impact is less than significant. **b through d.** The Puente and Carbon Canyon Hills lie within an area that is considered by archaeologists and ethnologists to be inhabited prehistorically by the Gabrieleno People. The Gabrielenos were hunter-gathers whose settlement pattern and mode of habitation consisted of occupying villages and seasonally dispersing to utilize local resources. In addition, unknown sites, structures, and/or fossils may be unearthed during excavation and grading activities associated with new construction. These issues will be examined in the EIR.				
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	:	9	9	9
ii) Strong seismic ground shaking?	:	9	9	9

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
iii) Seismic-related ground failure, including liquefaction?	:	9	9	9
iv) Landslides?	:	9	9	9
b) Result in substantial soil erosion or the loss of topsoil?	:	9	9	9
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	:	9	9	9
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	:	9	9	9
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	9	9	9	:

a.i and ii. An Alquist-Priolo Earthquake Fault Zone follows a northwest-southeast direction through the SOI and the portion of Brea between the Olinda Landfill and Carbon Canyon Regional Park. This zone has been designated as containing many traces of the Whittier fault. In addition to the Whittier Fault, the Planning Area is located atop the Elysian Park Thrust fault. As a result, strong ground shaking may occur from activity on either of these faults. This will be examined in the EIR.

iii and iv. Liquefaction can occur in locations where high groundwater levels interact with loose, unconsolidated soils, causing them to lose cohesion when subject to ground motion. In accordance with the Seismic Hazards Mapping Act, the California Division of Mines and Geology (DMG) has evaluated liquefaction and landslide susceptibility for the Planning Area. Most of the lowlands in the Planning Area have a high liquefaction potential because shallow groundwater (within 50 feet of the ground surface) has been reported historically. The hilly and mountainous areas of the Planning Area are underlain by soft sedimentary bedrock. Numerous landslides have been mapped in the eastern half of the SOI. These issues will be discussed in the EIR.

b. Topographically, the western portion of the incorporated City contains slopes of 10% or less, while the eastern portion and the SOI vary from 10% up to 40% and greater. Several blueline streams are located in the northern and northeast areas of the Planning Area. Soil erosion will be addressed in the EIR.

c and d. The Planning Area is underlain primarily by two geologic units – relatively weak semi-consolidated sedimentary bedrock in the hilly and mountainous areas, and loose, unconsolidated, often saturated, alluvial sediments in the valley and canyon bottoms. These soil types have the potential for liquefaction and collapse. The fine-grained components of some of the bedrock units are moderately to highly expansive. Revised mapping by the California Division of Mines and Geology (1995) reclassified the hillside areas as "marginally susceptible" to mudflows. These issues will be examined in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
e. All development in the City is connected to a sewer system for the disposal of wastewater. Development in the SOI will also be connected to a sewer system. No impact will result.				
VII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	:	9	9	9
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	:	9	9	9
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	:	9	9	9
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	:	9	9	9
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	9	9	9	:
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	9	9	9	:
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	9	9	:	9
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	:	9	9	9

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a through d. Businesses that use, transport, or dispose of hazardous materials currently exist in Brea. According to the Environmental Protection Agency, eleven "archive" Superfund sites are located within the Planning Area. Archive status means that, to the best of EPA's knowledge, the EPA has completed its assessment of the site, and no further steps will be taken to list the site on the National Priority List (NPL). The Planning Area also has sites listed on the EPA Large and Small Quantity Generator Facilities lists. Three oil fields are located within the SOI: Yorba Linda, East Coyote and Brea-Olinda oil fields. Development pursuant to the General Plan may result in hazards due to previous oil exploration. These issues will be addressed in the EIR.				
e and f. Brea is not located within two miles of a public airport nor in the vicinity of a private airstrip. **g.** As part of the 1986 Superfund Amendments and Reauthorization Act, Title III requires that each community establish a Local Emergency Planning Committee (LEPC) that is responsible for developing an emergency plan for preparing for and responding to chemical emergencies in that community. The plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The LEPC is required to review, test, and update the plan each year. The City has developed an Emergency Response Plan and maintains an Emergency Operations Center. The program is coordinated by a full-time management analyst/emergency preparedness coordinator that is assigned to the Brea Fire Department. The General Plan will not interfere with this Emergency Response Plan; the Safety Element includes policies to support and facilitate emergency preparedness. Impact is less than significant. **h.** Given the topography and undeveloped land in the SOI, areas along the northern County border have a very high wildfire risk while the eastern portion of the City and SOI have a moderate to high wildfire risk. This issue will be discussed in the EIR.				
VIII. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	**9**	**9**	**:**	**9**
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	**:**	**9**	**9**	**9**
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	**:**	**9**	**9**	**9**

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	:	9	9	9
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	:	9	9	9
f) Otherwise substantially degrade water quality?	9	9	:	9
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	:	9	9	9
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	:	9	9	9
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	:	9	9	9
j) Inundation of seiche, tsunami, or mudflow?	9	9	:	9

a. All new development will be required to comply with existing water quality standards and waste discharge regulations set forth by the Regional Water Quality Control Board, Santa Ana region. Impact is less than significant.

b. Brea purchases its water supply from the Metropolitan Water District of Southern California (MWD) and the California Domestic Water Company (CDWC). Although the La Habra Groundwater Basin is located beneath the City, the water quality in the basin is poor and would require treatment and blending with higher quality water to meet the State's public health standards. The CDWC provides groundwater from the Main San Gabriel Basin to its customers. New development in the Planning Area has the potential to deplete groundwater supplies and interfere with groundwater recharge. This will be examined in the EIR.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact

c through e. The majority of western Brea, within the corporate limits, is developed. However, development of scattered vacant parcels will increase the amount of impervious surfaces within the City. The SOI and eastern portion of the City have several blueline streams that may be altered due to development pursuant to the General Plan. This development will also increase the amount of stormwater runoff. These issues will be discussed in the EIR.

f. All new development will be required to comply with stormwater regulations set forth by the Regional Water Quality Control Board, Santa Ana region. Compliance with existing regulations for individual development projects will minimize potential impacts to a less-than-significant level.

g through i: The City participates in the National Flood Insurance Program. Flood Insurance Rate Maps (FIRMs) prepared by FEMA showing potential flood zones are available for areas within the City. FEMA maps are also available for unincorporated areas in the SOI. The western portion of the City (between Puente Street and Brea Boulevard) and areas along Carbon Canyon Road and Carbon Canyon Regional Park are subject to flooding. In addition, the location of the Orange County Reservoir and Carbon Canyon Dam present flooding problems. This will be examined in the EIR.

j. The project area is protected from tsunamis due to its inland location. Mudflows in the project area will be addressed in the EIR under the Geology and Soils section [see Initial Study question (c)].

IX. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	9	9	9	:
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	9	9	9	:
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	:	9	9	9

a. The majority of vacant land in the Planning Area is located in the eastern portion of Brea and the SOI area. These undeveloped locations represent a logical extension of existing development in the City. No impact will result.

b. Applicable land use plans, policies, and regulations of agencies with jurisdiction over the project include the following: County of Orange Zoning Ordinance, City of Brea Zoning Ordinance, and SCAG Growth Management Plan. The City Zoning Ordinance will be the primary implementation tool for the Land Use Element. Together, the Zoning Ordinance and Zoning Map will identify specific types of land use, intensity of use, and development and performance standards applicable to specific areas and parcels of land within the City. The Brea General Plan Growth Management Element provides goals and policies for development in Brea and the SOI to integrate with the growth management objectives of the County General Plan.

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
The Southern California Association of Governments (SCAG) Growth Management Plan recommends methods to redirect regional growth to minimize traffic congestion and better protect environmental quality. The goals of the Growth Management Plan include balancing jobs and housing. While SCAG has no authority to mandate implementation of its Growth Management Plan, principal goals have implications for the land use composition of the Brea Planning Area. The SCAG goals are reflected throughout all of the General Plan chapters. **c.** The Planning Area is located in the Southern California Coastal Sage Scrub NCCP Region (Northern Orange County Subregion). This issue will be examined in the EIR.				
X. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	:	9	9	9
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	:	9	9	9
a and b. Three oil fields are located within the SOI: Yorba Linda, East Coyote and Brea-Olinda oil fields. These active operations will be affected by development pursuant to the General Plan. This issue will be examined in the EIR.				
XI. NOISE. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	:	9	9	9
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	9	:	9	9
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	:	9	9	9
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	:	9	9	9
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	9	9	9	:
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	9	9	9	:

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a, through d. The primary source of noise in the City is transportation related. The Orange Freeway and Imperial Highway, along with other major roadways, create high levels of noise that affect the overall quality of life in the community. Uses under the General Industrial land use category may create sources of groundborne vibration. Implementation of General Plan land use policy will increase noise levels both in the short- and long-term, which may exceed standards established in the General Plan Noise Element. These issues will be addressed in the EIR. **e and f.** The project is not located within an airport land use plan, within two miles of a public airport or public use airport, or within the vicinity of a private airstrip. No impact will result.				
XII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	:	9	9	9
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	9	9	:	9
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	9	9	:	9
a. The proposed General Plan will induce population growth by allowing residential development to occur both within the City and the SOI. This issue will be discussed in the EIR. **b and c.** The proposed General Plan will allow the development of a variety of uses on vacant land. This development pursuant to the Plan will not displace substantial numbers of housing units or people. Impact will be less than significant.				
XIII. PUBLIC SERVICES				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	:	9	9	9
Police protection?	:	9	9	9

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
Schools?	:	9	9	9
Parks?	:	9	9	9
Other public facilities?	:	9	9	9

a. *Fire Protection* - Fire protection services are provided by City of Brea, with four stations located within the incorporated boundaries. The SOI is served by the Orange County Fire Authority (OCFA). The Public Safety chapter will contain goals and policies to ensure the adequate provision of fire services. Development pursuant to the General Plan will increase the demand for fire services and may result in the need for new facilities. This issue will be discussed in the EIR.

Police Protection – The City is served by the Brea Police Department, located in the Civic and Cultural Center. The Orange County Sheriff's Department serves the SOI. The Public Safety chapter will contain goals and policies to ensure the adequate provision of police services. Development pursuant to the General Plan will increase the demand for police services and may result in the need for new facilities. This issue will be discussed in the EIR.

Schools - The Brea Olinda Unified School District operates six elementary schools, one junior high school, and two high schools (one for continuing education). Development pursuant to the General Plan will increase the demand on the school district and may result in the need for new facilities. This issue will be discussed in the EIR.

*Parks*_– Brea maintains twelve parks and recreation facilities within its boundaries to meet the recreation and leisure needs of the community. The Carbon Canyon Regional Park is also located in Brea, while the Chino Hills State Park is in both the City and SOI. Park and recreation activities at City parks are coordinated by the Brea Community Services Department. The City maintains joint use agreements with the school district for use of school grounds, and several regional parks within Brea serve residents in Brea and surrounding communities. Several residential neighborhoods in the northwestern portion of Brea are not located in close proximity of a neighborhood park, especially the residential units immediately north of Central Avenue. Development pursuant to the General Plan will increase the usage of existing recreational facilities. The demand for park space and recreational activities will be examined in the EIR.

Other Pubic Facilities - The Orange County Public Library system serves the Planning Area with the Brea Branch in the Civic and Cultural Center. Potential impacts to existing libraries, and the potential need for new libraries in the project area, will be examined in the EIR.

XIV. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	:	9	9	9

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	:	9	9	9
a and b. As stated in Public Services (Section XIII), development pursuant to the General Plan will increase the usage of existing recreational facilities. In addition, the Land Use Policy Map includes the designation of new recreational facilities in the Planning Area. This issue will be examined in the EIR.				
XV. TRANSPORTATION/TRAFFIC. Would the project:				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	:	9	9	9
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	:	9	9	9
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	9	9	9	:
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	:	9	9	9
e) Result in inadequate emergency access?	9	:	9	9
f) Result in inadequate parking capacity?	:	9	9	9
g) Conflict with adopted policies, plans, or program supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	9	9	:	9
a and b. The Circulation component of the General Plan emphasizes the maintenance of a balanced, multi-modal transportation system that responds to demands of current and planned land uses. A level of service (LOS) scale is used to evaluate roadway performance based on V/C ratios. V/C ratios are calculated based on existing or future average daily traffic (ADT) volumes and daily capacity values for the various types of arterials. The levels range from "A" to "F" with LOS A representing free flow conditions and LOS F representing severe traffic congestion. Development pursuant to the General Plan will result in additional average daily trips, which may impact the LOS at different areas of the Planning Area. Traffic issues will be examined in the EIR. **c.** Brea is not located within two miles of a public airport nor in the vicinity of a private airstrip. No change in air traffic patterns will occur.				

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
d. The Circulation Element addresses the importance of compatibility between design issues and land use compatibility. However, development within the SOI will result in additional roadways. The potential for increased hazards with these planned roadways will be examined in the EIR. **e.** Within Carbon Canyon and throughout the unincorporated sphere area, steep terrain may hinder development of roads that facilitate quick emergency access. This issue will be examined in the EIR.				
f. Development pursuant to the proposed General Plan will increase the demand for parking in the City, potentially resulting in inadequate parking capacity. This will be examined in the EIR. **g.** One of the key components of the Circulation Plan is to promote the use of alternative transportation modes such as transit, bicycling and walking. Public bus service is provided by OCTA, and an established network of bus routes provides access to employment centers, shopping and recreational areas within the City. The City is committed to ensuring that public transportation remains a viable alternative to the automobile for residents. The Circulation component also illustrates the network of bicycle routes and trails that serve the project area and calls for the enhancement of these linkages. The General Plan is very supportive of alternative transportation modes. Impact is anticipated to be less than significant.				
XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	9	9	:	9
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing significant environmental effects?	:	9	9	9
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	:	9	9	9
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	:	9	9	9
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	:	9	9	9
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	:	9	9	9
g) Comply with federal, state, and local statutes and regulations related to solid waste?	9	9	9	:

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
a. All new development will be required to comply with existing wastewater treatment requirements set forth by the Regional Water Quality Control Board, Santa Ana Region. Impact is less than significant. **b through e.** Water provision and wastewater collection services are provided by the City. Water sources include imported water from the Metropolitan Water District and the California Domestic Water Company. Development pursuant to the General Plan will increase demand for water and wastewater services, particularly in the eastern portion of the City and the SOI. These issues will be addressed in the EIR. **f.** Waste generated within the City is taken to the Olinda Alpha landfill, which is located in the SOI just north of Olinda Ranch. Future development according to the proposed General Plan will generate additional solid waste within the Planning Area, potentially exceeding its permitted landfill capacity. This issue will be discussed in the EIR. **g.** Any development allowed according to the proposed General Plan will be required to comply with federal, state, and local statutes and regulations related to the disposal of solid waste. Impact is anticipated to be less than significant.				
XVII. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	:	9	9	9
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	:	9	9	9
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	9	9	:	9
a. As discussed in this Checklist, development that will occur pursuant to the General Plan has the potential to significantly impact biological and cultural resources and, therefore, has the potential to degrade the quality of the environment. These issues will be discussed in the relevant sections of the EIR.				

ISSUES:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
b. The General Plan is a long-term community plan to guide future development in the Planning Area. Since subsequent development projects will occur during the life of the Plan, this issue will be examined in the EIR. **c.** The purpose of the General Plan is to guide long-term development and to provide a safe living and working environment for the residents of Brea. The Plan is anticipated to result in an overall beneficial impact on people. Impact is anticipated to be less than significant.				

REFERENCES

Brea General Plan, June 1986.

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