ATTACHMENT 2

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Los Angeles County

General Plan

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Part I: Introduction

Executive Summary

The unincorporated areas of Los Angeles County are comprised of approximately 2,650 square miles, and over one million people. The Los Angeles County General Plan provides the policy framework and establishes the long range vision for how and where the unincorporated areas will grow, and establishes goals, policies, and programs to foster healthy, livable, and sustainable communities. This document represents a comprehensive effort to update the County's 1980 General Plan.

I. Guiding Principles

The following five guiding principles work to emphasize the concept of sustainability throughout the General Plan.

1. Employ Smart Growth: Shape new communities to align housing with jobs and services; and protect and conserve the County's natural and cultural resources, including the character of rural communities.

2. Ensure community services and infrastructure are sufficient to accommodate growth: Coordinate an equitable sharing of public and private costs associated with providing appropriate community services and infrastructure to meet growth needs.

3. Provide the foundation for a strong and diverse economy: Protect areas that generate employment and promote programs that support a stable and well educated workforce. This will provide a foundation for a jobs-housing balance and a vital and competitive economy in the unincorporated areas.

4. Promote excellence in environmental resource management: Carefully manage the County's natural resources, such as air, water, wildlife habitats, mineral resources, agricultural land, forests, and open space in an integrated way that is both feasible and sustainable.

5. Provide healthy, livable and equitable communities: Design communities that incorporate their cultural and historic surroundings, are not overburdened by nuisance and negative environmental factors, and provide reasonable access to food systems. These factors have a measureable effect on public well-being.

II. Planning Areas Framework

The Los Angeles County General Plan is the foundational document for all community-based plans that serve the unincorporated areas. The General Plan identifies 11 Area Plans. The purpose of the Planning Areas Framework is to provide a mechanism for local communities to work with the County to develop plans that respond to their unique and diverse character. The 11 Planning Areas are:

- Antelope Valley Planning Area
- Coastal Islands Planning Area
- East San Gabriel Valley Planning Area

- Gateway Planning Area
- Metro Planning Area
- San Fernando Valley Planning Area
- Santa Clarita Valley Planning Area
- Santa Monica Mountains Planning Area
- South Bay Planning Area
- West San Gabriel Valley Planning Area
- Westside Planning Area

III. General Plan Elements

The General Plan is comprised of the following elements:

Land Use Element

The Land Use Element designates land uses, and provides strategies and planning tools to facilitate and guide future development and revitalization efforts.

Mobility Element

The Mobility Element provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The Highway Plan and the Bicycle Master Plan are sub-components of the Mobility Element.

Air Quality Element

The Air Quality Element summarizes air quality issues and outlines the goals and policies that will improve air quality and reduce greenhouse gas emissions. The Community Climate Action Plan is a sub-component of the Air Quality Element.

Conservation and Natural Resources Element

The Conservation and Natural Resources Element guides the long-term conservation of natural resources and preservation of available open space areas.

Parks and Recreation Element

The Parks and Recreation Element plans and provides for an integrated parks and recreation system that meets the needs of residents.

Noise Element

The Noise Element reduces and limits the exposure of the general public to excessive noise levels. The Noise Element sets the goals and policy direction for the management of noise.

Safety Element

The purpose of the Safety Element is to reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards.

Public Services and Facilities Element

The Public Services and Facilities Element promotes the orderly and efficient planning of public services and facilities and infrastructure in conjunction with development and growth.

Economic Development Element

The Economic Development Element outlines economic development goals, and provides strategies that contribute to economic well-being.

Housing Element

The Housing Element analyzes and plans for existing and future housing needs. The Housing Element addresses the housing needs of all income levels and accommodates a diversity of housing types and special needs.

IV. General Plan Implementation

The General Plan Implementation section describes the ordinances, programs and tasks that will implement the General Plan. The section describes which County departments and agencies are responsible for implementation programs and sets a timeframe for completion of those programs.

Chapter 1: Introduction

I. Purpose

The California Government Code requires that each city and county adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning." The Los Angeles County General Plan is the guide for long-term physical development and conservation through a framework of goals, policies, and implementation programs.

The unincorporated areas of Los Angeles County are comprised of approximately 2,650 square miles, and over one million people. The Los Angeles County General Plan provides the policy framework for how and where the unincorporated areas will grow through the year 2035, and establishes goals, policies, and programs to foster healthy, livable, and sustainable communities. This document represents a comprehensive effort to update the County's 1980 General Plan.

The General Plan guides growth countywide through goals, policies, and programs that discourage sprawling development patterns; protect areas with hazard, environment and resource constraints; encourage infill development in areas near transit, services and existing infrastructure; and make a strong commitment to ensuring sufficient services and infrastructure. It also lays the foundation for future community-based planning initiatives that will identify additional opportunities for accommodating growth.

II. Document Organization

Part I: Introduction: This section is a user's guide to the General Plan, with information on document organization, applicability, and the guiding principles of the General Plan. This section also provides background information and the growth forecast for the unincorporated areas.

Part II: Planning Areas Framework: This section provides an overview of the Planning Areas Framework, which facilitates the planning of all unincorporated areas through 11 identified planning areas.

Part III: General Plan Elements: This section contains the elements of the General Plan. These elements identify unincorporated countywide planning issues, as well as the goals and policies to address them. Policies are organized by topic for ease of use.

Part IV: General Plan Implementation Program: This section provides information on updating and maintaining the General Plan, including data and maps. This section also contains the implementation programs of the General Plan. The implementation programs create actions for policies, and also identify lead/partner agencies, and a timeline for program completion. The implementation programs are organized by General Plan element. This section includes a summary of all goals and policies.

Appendices: The appendices contain many of the data, methodologies and assumptions, background studies, and documentation that informed the development of the General Plan. The appendices are organized by General Plan element.

III. How to Use the General Plan

The General Plan provides a general policy framework for community-based plans, such as area plans, community plans and coastal land use plans, and works in conjunction with several planning documents, including strategic plans and master plans. The General Plan is implemented by the Los Angeles County Code, in particular, Titles 21 (Subdivisions) and 22 (Planning and Zoning). The California Government Code requires that all zoning ordinances, zone changes, subdivisions, capital improvement plans, and public works projects be consistent with the General Plan.

The General Plan also serves as an advisory countywide document to coordinate land use planning, public service and facilities planning, circulation, environmental management and regional land use and transportation initiatives with the 88 cities within Los Angeles County and with special districts and regional agencies, such as the Southern California Association of Governments (SCAG), the Los Angeles County Metropolitan Transportation Authority (Metro), Los Angeles County Sanitation Districts, air quality districts, water districts and suppliers, and school districts.

There are many regulatory and policy components to this General Plan. Below are instructions for using and interpreting the General Plan:

- **Guiding Principles:** Guiding principles serve as the base metric for interpreting the General Plan goals, policies, and implementation programs.

- **Goals:** A goal is a general direction-setter that expresses the community's values. It may be abstract in nature and is generally not quantifiable or time dependent.

- **Policies:** A policy is a specific statement or diagram that guides decision-making. It indicates a commitment of the County to a particular course of action. A policy may be carried out through implementation programs and/or by direct application of the policy. No policy, whether in written or diagram form, shall be given greater weight than any other policy.

- **Topics:** Topics are used to categorize policies throughout the General Plan elements. Topics are meant to facilitate ease of use, and are not to be used to interpret policies.

- **Implementation Programs:** Implementation programs identify actions for carrying out the policies of the General Plan. Each program identifies lead/partner agencies; however, they are not exclusive and new partners can be added as needed. The programs also include general timeframes that assume the availability of adequate funding. The programs and timeframes may need to be modified accordingly if adequate funding is not available.

- **Maps and Tables:** Maps and tables provide background information, technical justification for policies, and/or other policy information. They should be updated regularly and interpreted in the context of General Plan goals and policies.

Chapter 2: Applicability

The following provisions shall apply to complete applications filed prior to the effective date of this General Plan.

The applicant may choose whether the application will be reviewed for consistency with the previously adopted General Plan or with this General Plan. In either case, approval of the application is not guaranteed.

If an application is reviewed for consistency with the previously adopted General Plan, the applicant may modify the application prior to consideration by the Commission, Hearing Officer or Director. The modification may necessitate the submittal of revised, updated, or additional materials and reports, such as, but not limited to, site plans, elevations, and oak tree reports. In addition, a modification may necessitate additional environmental review pursuant to the California Environmental Quality Act and the County's environmental review procedures. The modification shall be reviewed for consistency with the previously adopted General Plan if it does not change the housing type (e.g., from single-family to two-family or multi-family) nor increase:

- The residential density;
- The floor area or lot coverage of non-residential space;
- The amount of grading; or
- The area of ground disturbance.

Minor modifications to an approved but not used application, found in substantial conformance with such application as determined by the Director, may be reviewed for consistency with the previously adopted General Plan. Otherwise, a modification shall be considered a new application and shall be reviewed for consistency with this General Plan.

If an approval is used and has a grant term, the approved use may be maintained until the end of the grant term. At the end of the grant term, the use shall be subject to the General Plan policies in effect at that time. During the grant term, any minor modification to the approved use, found in substantial conformance with such application as determined by the Director, shall be reviewed for consistency with the previously adopted General Plan. Otherwise, a modification to the approved use shall be subject to the General Plan policies in effect at that time.

If an approval is used and does not have a grant term, the approved use may be maintained in perpetuity unless a time limit is specified in the Zoning Code. In addition, all applicable non-conforming use provisions of the Zoning Code shall apply to the approved use. A modification to the approved use, found in substantial conformance with such application as determined by the Director, shall be reviewed for consistency with the previously adopted General Plan. Otherwise, a modification to the approved use shall be subject to the General Plan policies in effect at that time.

Chapter 3: Guiding Principles

Guiding Principles

Sustainability requires that planning practices meet the needs of Los Angeles County without compromising the ability of its future generations to realize their economic, social, and environmental goals. The following five guiding principles work to emphasize the concept of sustainability throughout the General Plan.

1. Employ Smart Growth: Shape new communities to align housing with jobs and services; and protect and conserve the County's natural and cultural resources, including the character of rural communities.

The General Plan implements smart growth by using strategies that are tailored to each community. In urban areas, transit-oriented development will create vibrant neighborhood centers around transit stations where people can live, work, and shop without the need to drive to each destination. Also in urban areas, active corridor development will connect major centers and neighborhoods. In rural areas, land uses and developments that are compatible with the natural environment and landscape will maintain existing community character. These work in conjunction with other smart growth strategies to "green" streets and buildings, and protect and conserve natural resources.

2. Ensure community services and infrastructure are sufficient to accommodate growth: Coordinate an equitable sharing of public and private costs associated with providing appropriate community services and infrastructure to meet growth needs.

Community-based services, such as schools, parks, libraries, police and fire services, and waste management are essential elements of all communities. In urban areas, quality of life is further dependent on infrastructure such as water and sewer systems, flood protection, utilities, and circulation systems and traffic signalization. Successful land use planning and growth management relies upon orderly and efficient planning and placement of community services where appropriate. It also relies upon the coordination of public and private partners to provide and maintain appropriate and sufficient services to all communities, and develop urban infrastructure where it is commensurate with urban growth. Planning for community services and infrastructure must be context-sensitive. The General Plan establishes policies and programs to ensure appropriate service levels for all communities, and provide urban infrastructure for new urban developments.

3. Provide the foundation for a strong and diverse economy: Protect areas that generate employment and promote programs that support a stable and well educated workforce. This will provide a foundation for a jobs-housing balance and a vital and competitive economy in the unincorporated areas.

Ensuring the economic vitality and long-term competitiveness of the unincorporated areas requires policies that will promote a stable and well-educated job base, generate tax revenues to support quality services, provide for a jobs-housing balance, and accommodate the businesses and industries that represent the jobs of the future. As planning for future growth and the appropriate land use mix has major impacts on the local and regional economy, the General Plan addresses the protection of industrial land in the unincorporated areas. The General Plan also provides policies and programs to foster economic development.

4. Promote excellence in environmental resource management: Carefully manage the County's natural resources, such as air, water, wildlife habitats, mineral resources, agricultural land, forests, and open space in an integrated way that is both feasible and sustainable.

Stewardship of the natural resources in Los Angeles County, such as clean air, clean water, wildlife habitats, mineral resources, agricultural land, forests, and open space, is essential to a successful sustainability strategy. The majority of the natural resources in Los Angeles County are located in the unincorporated areas. Natural resources are vital for the recreational, scenic and wilderness opportunities they provide, as well as for their role in sustaining the function of natural environments. The General Plan provides policy guidance to protect and conserve natural resources and to improve the quality of its air, water and biological resources. The General Plan also includes goals, policies and programs to minimize risks and discourage development in areas that are prone to safety hazards, such as earthquakes, floods and wildfires.

5. Provide healthy, livable and equitable communities: Design communities that incorporate their cultural and historic surroundings, are not overburdened by nuisance and negative environmental factors, and provide reasonable access to food systems. These factors have a measureable effect on public well-being.

The General Plan promotes the creation of communities that foster physical activity, safety, and health. Land use that promotes physical activity and access to healthy food is a strategy to address the obesity epidemic and corresponding high rates of chronic diseases. In addition, policies to address environmental conditions, such as poor air quality, polluted urban runoff, deteriorated housing conditions, and ground and surface contamination have a direct impact on public health. Furthermore, promoting safety through improvements in the County's bikeway network, the creation of pedestrian-friendly environments and complete streets that are accessible to all users produce positive outcomes from a land use and public health perspective.

The General Plan addresses environmental justice by providing information and raising awareness of a number of issues that impact the unincorporated areas, including but not limited to excessive noise, traffic, water pollution, air pollution, and heavy industrial uses. The General Plan also addresses environmental justice by emphasizing the importance of meaningful coordination and actions. The General Plan emphasizes the importance of sufficient community-based services and infrastructure; protecting and conserving open space, natural and resource areas; preventing and minimizing pollution impacts; and stakeholder participation in planning efforts.

Environmental Justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

An environmentally just Los Angeles County is a place where:

- Environmental risks, hazards, and public service related environmental services, such as trash hauling and landfills, are distributed equitably without discrimination;
- Existing and proposed negative environmental impacts are mitigated to the fullest extent to protect the public health, safety, and well-being;
- Access to environmental investments, benefits, and natural resources are equally distributed; and

- Information, participation in decision-making, and access to justice in environment-related matters are accessible to all.

Chapter 4: Background

I. Location and Description

With approximately 4,083 square miles, Los Angeles County is geographically one of the largest counties in the country. Los Angeles County stretches along 75 miles of the Pacific Coast of Southern California, and is bordered to the east by Orange County and San Bernardino County, to the north by Kern County, and to the west by Ventura County. Los Angeles County also includes two offshore islands, Santa Catalina Island and San Clemente Island. Figure 4.1 shows the regional location of Los Angeles County.

Figure 4.1: Regional Location of Los Angeles County Map

Unincorporated Areas

The unincorporated areas account for approximately 65 percent of the total land area of Los Angeles County, as shown in Table 4.1.

Table 4.1: Los Angeles County Distribution of Land Area

County Land Components	Cities (sq. miles)	Unincorporated (sq. miles)	Total (sq. miles)
Mainland	1,456.0	2,497.7	3,953.7
San Clemente Island	0	56.4	56.4
Santa Catalina Island	2.9	71.9	74.8
Total	1,458.9	2,626.0	4,084.9

Source: Los Angeles County Department of Regional Planning

The unincorporated areas in the northern portion of Los Angeles County are covered by large amounts of sparsely populated land, and include the Angeles National Forest, part of the Los Padres National Forest, and the Mojave Desert. The unincorporated areas in the southern portion of Los Angeles County consist of many non-contiguous land areas, which are often referred to as the County's unincorporated urban islands.

The County's governmental structure is comprised of five Supervisorial Districts. The Board of Supervisors is the governing body of the County, and makes legislative land use decisions for the unincorporated areas. Figure 4.2 shows the unincorporated areas, and Figure 4.3 shows the County's Supervisorial Districts.

Figure 4.2: Los Angeles County Unincorporated Areas Map

Figure 4.3: Los Angeles County Supervisorial Districts Map

Climate and Topography

Los Angeles County is a land of beaches, valleys, mountains, and deserts. Overall, the climate can be characterized as “Mediterranean,” with hot, dry summers and mild, wet winters. The diversity of the topography results in localized climate zones that are roughly divided by the Transverse Ranges (Santa Monica Mountains and San Gabriel Mountains). The climate zones are closely tied to geologic landforms and vary based on elevation changes and distance from the ocean. These climate zones can be grouped into three broad categories:

Coastal Plain

The coastal plain includes the beaches, valleys, and canyons that occupy the Los Angeles Basin and terminate at the Transverse Ranges. During the dry season, the determining factor in coastal plain weather is the proximity to the Pacific Ocean and the resultant marine layer. The marine layer acts as a buffer, which is evidenced by relatively cool and constant temperatures, low clouds, fog, and haze. The marine layer settles over the Basin during the evening and early morning before being burned off by sunshine midday. Due to the dominance and stability of the high pressure area in the Basin, precipitation is rare between May and November.

Mountain

Climates in the mountains are characterized by lower average temperatures and heavier rainfall than in the coastal plain. The Transverse Ranges are further removed from the climatic influences of marine wind patterns and experience the additional influence of altitude.

High Desert

The high desert includes the Antelope Valley, which is the westernmost portion of the Mojave Desert. The high desert is located more than 50 miles inland, and is removed from marine influences and experiences a more extreme type of climate. The Transverse Ranges act as a barrier to rain-bearing clouds moving inland. In addition, the Antelope Valley is home to several wildlife and wildflower sanctuaries that thrive in the often inhospitable climate found in the high desert.

Regional Context

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization that represents the counties of Los Angeles, Orange, Ventura, Imperial, San Bernardino, and Riverside, and 190 cities. Los Angeles County is further divided into nine SCAG subregions: North Los Angeles County; San Fernando Valley Council of Governments; Las Virgenes Malibu Conejo Council of Governments; Arroyo Verdugo; Westside Cities Council of Governments; South Bay Cities Council of Governments; City of Los Angeles; San Gabriel Valley Council of Governments; and Gateway Cities Council of Governments. Table 4.2 shows population growth in the SCAG region, by county, between 2000 and 2010.

Table 4.2 Population for the SCAG Region, County, 2000 and 2010

County	2000 Population	Percent of Region	2010 Population	Percent of Region
Los Angeles	9,519,000	57.6%	9,819,000	54.4%

Orange	2,846,000	17.2%	3,010,000	16.7%
Riverside	1,545,000	9.4%	2,190,000	12.1%
San Bernardino	1,709,000	10.4%	2,035,000	11.3%
Ventura	753,000	4.6%	823,000	4.6%
Imperial	142,000	0.9%	175,000	1.0%
Total	16,514,000	100.0%	18,052,000	100.0%

Source: SCAG 2012-2035 RTP/SCS

Existing Population

There are approximately 10 million people in Los Angeles County as a whole, with approximately one million living in the unincorporated areas. Table 4.3 shows the percent change in population from the year 2000 to 2010.

Table 4.3: Los Angeles County Population, 2000 and 2010

Area	Population 2000	Population 2010	Increase (%)
Los Angeles County	9,519,338	9,818,605	3%
Unincorporated Areas	986,050	1,057,088	7%

Source: 2000 and 2010 U.S. Census

Race and Ethnicity

The cultural diversity of residents plays a significant role in defining the character of the unincorporated areas. Influenced by migratory patterns, the approximately 10 million residents comprise one of the most diverse communities in the country. The California Department of Finance estimates that by the year 2050, the Hispanic and Asian populations will account for more than 80 percent of the residents. Planning efforts must acknowledge and account for the diversity and social values that accompany these demographic shifts. Table 4.4 shows the racial and ethnic composition of the unincorporated areas.

Table 4.4: Unincorporated Los Angeles County, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	512,219	48%
Black or African-American	96,384	9%
American Indian or Alaska Native	8,851	1%
Asian	124,109	12%
Native Hawaiian and Other Pacific Islander	2,037	0.2%
Some Other Race	271,531	26%
Two or More Races	41,957	4%
Total	1,057,088	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	602,045	57%
Not Hispanic or Latino	455,043	43%
Total	1,057,088	100%

Source: 2010 U.S. Census

II. Growth Forecast

Population, housing, and employment projections play a critical role in the planning process and can help identify and guide future development patterns. The growth forecast includes population projections, household projections, and employment projections. It is important to note that the General Plan uses a regional strategy to guide growth in a way that plans for more efficient and sustainable land use patterns to address climate change, mobility, and community development. The General Plan plans for total growth by encouraging development in areas with infrastructure and access to transit, and discouraging growth in undeveloped areas and environmentally-sensitive and hazardous areas.

The General Plan's growth forecast is from the SCAG 2012 Regional Transportation Plan (RTP). The growth projections in Tables 4.5, 4.6 and 4.7 provide a picture of probable occurrences rather than assured outcomes. Furthermore, the projections do not account for unforeseen future events, as well as changes in General Plan policies.

Table 4.5: Los Angeles County Population Projections

	Population2008	Population 2035	Increase (%)
Los Angeles County	9,778,000	11,353,000	16%
Unincorporated Areas	1,052,800	1,399,500	33%

Source: SCAG 2012-2035 RTP/SCS

Table 4.6: Los Angeles County Household Projections

	Households2008	Households 2035	Increase (%)
Los Angeles County	3,228,000	3,852,000	19%
Unincorporated Areas	298,100	405,500	36%

Source: SCAG 2012-2035 RTP/SCS

Table 4.7: Los Angeles County Employment Projections

	Employment 2008	Employment 2035	Increase (%)
Los Angeles County	4,340,000	4,827,000	11%
Unincorporated Areas	237,000	318,100	34%

Source: SCAG 2012-2035 RTP/SCS

III. Community Participation

The General Plan reflects a comprehensive effort to facilitate stakeholder participation and garner local input in the development of its goals, policies and programs. Appendix B provides an overview and timeline of the recent outreach activities and drafts of the General Plan that have been released to the public, and a summary of community and stakeholder identified issues that informed the development of the General Plan Guiding Principles.

Part II: Planning Areas Framework

Chapter 5: Planning Areas Framework

I. Planning Areas Framework

The Los Angeles County General Plan is the foundational document for all community-based plans that serve the unincorporated areas. The purpose of the Planning Areas Framework is to provide a mechanism for local communities to work with the County to develop plans that respond to their unique and diverse character. As shown in Figure 5.1, the General Plan identifies 11 Planning Areas, which make up the Planning Areas Framework. The 11 Planning Areas are:

- Antelope Valley Planning Area
- Coastal Islands Planning Area
- East San Gabriel Valley Planning Area
- Gateway Planning Area
- Metro Planning Area
- San Fernando Valley Planning Area
- Santa Clarita Valley Planning Area
- Santa Monica Mountains Planning Area
- South Bay Planning Area
- West San Gabriel Valley Planning Area
- Westside Planning Area

Figure 5.1 Planning Areas Framework Map

The General Plan provides goals and policies to achieve countywide planning objectives for the unincorporated areas, and serves as the foundation for all community-based plans, such as area plans, community plans, and coastal land use plans. Area plans focus on land use and policy issues that are specific to the Planning Area. Community plans cover smaller geographic areas within the Planning Area, and address neighborhood and/or community-level policy issues. Coastal land use plans are components of local coastal programs, and regulate land use and establish policies to guide development in the coastal zone.

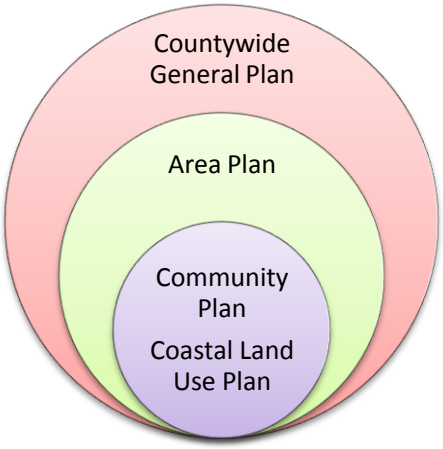
Figure 5.2 shows the relationship of the General Plan to community-based plans. All community-based plans are components of the General Plan and must be consistent with General Plan goals and policies.

The following is a list of community-based plans:

- Altadena Community Plan

- Antelope Valley Area Plan
- East Los Angeles Community Plan
- Hacienda Heights Community Plan
- Marina del Rey Local Coastal Land Use Plan
- Malibu Local Coastal Land Use Plan
- Rowland Heights Community Plan
- Santa Monica Mountains North Area Plan
- Santa Catalina Island Local Coastal Land Use Plan
- Santa Clarita Valley Area Plan
- Twin Lakes Community Plan
- Walnut Park Neighborhood Plan
- West Athens-Westmont Community Plan

Figure 5.2: Relationship of General Plan to Community-Based Plans



Planning Areas Framework Implementation

An area plan will be prepared or updated for each of the 11 Planning Areas. The unique characteristics and needs of each of the Planning Areas will guide the development of each area plan. Area plans provide opportunities to update community-based plans, as well as implementation tools of the General Plan, such as specific plans and community standards districts. For more information, see Program LU-1: Planning Areas Framework Program in Chapter 16: General Plan Implementation Programs.

II. Planning Areas Descriptions

The following are profiles of the 11 Planning Areas. They include the identification of opportunity areas, which should be considered for further study when preparing community-based plans. The opportunity areas are described in Table 5.1.

Table 5.1: Opportunity Area Types

Transit Centers	Areas that are supported by major public transit infrastructure. Transit centers are identified based on opportunities for a mix of higher intensity development, including multifamily housing, employment and commercial uses; infrastructure improvements; access to public services and infrastructure; playing a central role within a community; or the potential for increased design, and improvements that promote living streets and active transportation, such as trees, lighting, and bicycle lanes.
Neighborhood Centers	Areas with opportunities suitable for community-serving uses, including commercial only and mixed-use development that combine housing with retail, service, office and other uses. Neighborhood centers are identified based on opportunities for a mix of uses, including housing and commercial; access to public services and infrastructure; playing a central role within a community; or the potential for increased design, and improvements that promote living streets and active transportation, such as street trees, lighting, and bicycle lanes.
Corridors	Areas along boulevards or major streets that provide connections between neighborhoods, employment and community centers. Corridors are identified based on opportunities for a mix of uses, including housing and commercial; access to public services and infrastructure; playing a central role within a community; or the potential for increased design, and improvements that promote living streets and active transportation, such as trees, lighting, and bicycle lanes.
Industrial Flex Districts	Industrial areas that provide opportunities for non-industrial uses and mixed uses, where appropriate, and also light industrial or office/professional uses that are compatible with residential uses.
Industrial Opportunity Areas	Economically viable industrial and employment-rich lands located in an unincorporated community that has an adopted community-based plan, or is in the process of creating one. Future considerations should be given to these areas to be mapped as Employment Protection Districts, where industrial zoning and industrial land use designations should remain, and where policies to protect industrial land from other uses (residential and commercial) should be enforced.
Rural Town Centers	Focal points of rural communities, serving the daily needs of residents and providing local employment opportunities. Rural town centers are identified based on the opportunities for new public facilities and new commercial uses.

1. Antelope Valley Planning Area

Figure 5.3: Antelope Valley Planning Area Map

Planning Area Profile

Location

The Antelope Valley is located approximately 60 miles north of Downtown Los Angeles. The unincorporated portion of the Antelope Valley Planning Area covers 1,800 square miles, or 44 percent of the 4,083 square miles in the County. The unincorporated Antelope Valley surrounds the City of Palmdale and City of Lancaster, and borders San Bernardino County to the east, Ventura County to the west, and Kern County to the north. The Planning Area is shown in Figure 5.3.

Population and Housing

Table 5.2: Antelope Valley Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	382,868	73,488	19%
Housing Units	125,317	26,939	21%
Household Size (Average)	3.28	3.05	n/a

Source: 2010 U.S. Census

Table 5.3: Antelope Valley Planning Area, Race and Ethnicity,2010

Race	Unincorporated Area Population	Percentage
White	51,555	70%
Black or African American	4,505	6%
American Indian and Alaska Native	887	1%
Asian	1,475	2%
Native Hawaiian and Other Pacific Islander	132	0%
Some Other Race	11,692	16%

Two or More Races	3,242	4%
Total	73,488	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	27,069	37%
Not Hispanic or Latino	46,419	63%
Total	73,488	100%

Source: 2010 U.S. Census

Geography

The Planning Area contains many diverse vegetative communities, geologic forms and climatic conditions. The Angeles National Forest, and the Liebre and Sierra Pelona mountain ranges, are located in the Planning Area. The main land feature is the high desert, with elevations between 2,300 and 2,400 feet above sea level. The Planning Area contains the majority of active agricultural land uses in Los Angeles County. The Antelope Valley Significant Ecological Area (SEA), San Andreas SEA, Joshua Tree Woodlands SEA, and Santa Clara River SEA also cover large portions of the Planning Area. The San Andreas Seismic Fault Zone, which cuts across the Planning Area, poses significant hazards. In addition, a significant portion of the Planning Area faces threats of wildfires and floods.

Transportation Infrastructure

Two major freeways provide access to the Planning Area: Interstate-5, which is located in the western portion of the Planning Area, and links Northern and Southern California; and State Route-14, which connects the adjacent Santa Clarita Valley just north of metropolitan Los Angeles, to the eastern portion of the Antelope Valley.

In addition, Metrolink's Antelope Valley Line has three station stops in the Antelope Valley, which are located in unincorporated Acton, the City of Palmdale, and the City of Lancaster. Palmdale Regional Airport, General William J. Fox Airfield and Edwards Air Force Base are also located in the unincorporated Antelope Valley. Antelope Valley Transit Authority includes four local routes, two special routes, and three commuter routes that connect the Antelope Valley to other areas.

There are a number of major transportation infrastructure projects that are planned for the Planning Area. On the eastern side of the Antelope Valley, the High Desert Corridor Project will connect State Route-14 with State Route-18 in San Bernardino County, and promote connectivity, traffic safety and goods movement. On the western side of the Antelope Valley, the Northwest-138 Corridor Improvement Project will connect Interstate-5 with State Route-14.Both the High Desert Corridor and the Northwest-138 Corridor Improvement projects are joint initiatives of the Los Angeles County Metropolitan Transportation Authority (Metro) and the California Department of Transportation (Caltrans). Together, the two projects will result in significant improvements to the east-west connection of the Antelope Valley by linking Interstate-5 on the western side, and Interstate-15 on the eastern side of the Antelope Valley. Both projects also include considerations for the incorporation of rail components, which has the added potential of linking the proposed California

High Speed Rail system on the western side and the Xpress West line on the eastern side. These separate, stand-alone rail projects propose to connect Southern California to the City of San Francisco and the City of Las Vegas, respectively. With the potential for interconnected transportation systems, the Planning Area is expected to have strong linkages to the major population and employment centers, which create future opportunities for economic growth and development.

Planning Area Issues

The Planning Area is predominately rural and has major constraints, including natural hazards, environmental issues, lack of infrastructure, and limited water supply. It is critical that existing rural communities, agriculture, natural resources, and biological diversity remain protected. In addition, incorporating water conservation strategies and encouraging the recycling of water is important.

As thousands of acres of desert lands have been subdivided over the past decade, the population of the Planning Area has increased significantly. While much of the growth has been at urban densities in and adjacent to the City of Palmdale and the City of Lancaster, the desirability of rural living and the availability of affordable housing have led to significant growth in the many unincorporated communities. In turn, many residents have had to commute further distances to access employment opportunities.

Figure 5.4: Opportunity Areas Map—Acton

Figure 5.5: Opportunity Areas Map—Antelope Acres

Figure 5.6: Opportunity Areas Map—Lake Hughes

Figure 5.7: Opportunity Areas Map—Lake Los Angeles

Figure 5.8: Opportunity Areas Map—Leona Valley

Figure 5.9: Opportunity Areas Map—Littlerock

Figure 5.10: Opportunity Areas Map—Pearblossom

Figure 5.11: Opportunity Areas Map—Quartz Hill

Figure 5.12: Opportunity Areas Map—Roosevelt

Figure 5.13: Opportunity Areas Map—Sun Village

The opportunity areas in the Planning Area include Rural Town Centers as shown in Figures 5.4-5.13. The Planning Area also includes three Economic Opportunity Areas (EOA), which are areas where major infrastructure projects are ongoing or are being planned, which create various opportunities for economic growth and development at a regional scale. Further planning studies and activities should be conducted in these areas to ensure that any growth and development resulting from these infrastructure projects progress in a sustainable and environmentally-sensitive way, while preserving the unique character and identity of the area. The three EOA are established due to ongoing plans by Metro and Caltrans to build the High Desert Corridor Project in the eastern

side of the Antelope Valley and the Northwest 138 Corridor Improvement Project in the western side of the Antelope Valley: East EOA, encompassing the communities of Lake Los Angeles, Sun Village and Littlerock; Central EOA, located along Avenue D, north of Fox Field Airport and west of the State Route-14; and West EOA, located along Highway 138 and including portions of Neenach.

2. Coastal Islands Planning Area

Figure 5.14: Coastal Islands Planning Area Map

Planning Area Profile

Location

San Clemente Island lies approximately 63 miles south of the City of Long Beach and 78miles west of the City of San Diego. San Clemente Island is approximately 24 miles long and 5miles across at its widest point. It has a land area of approximately 57 square miles. Since 1934, San Clemente Island has been owned and operated by the U.S. Navy. More than a dozen range and operational areas are clustered within a 60 mile radius of San Clemente Island. The Commander-in-Chief U.S. Pacific Fleet (CINCPACFLT) is the major claimant for San Clemente Island, and Naval Air Station North Island (NASNI) is responsible for its administration.

Santa Catalina Island is the only significantly inhabited island near the California coast. It is located approximately 22 miles south of the Palos Verdes Peninsula and 27 miles southwest of the Orange County shoreline. Santa Catalina Island is approximately 21 miles long and 8 miles wide. It has a land area of approximately 74 square miles.

The Coastal Islands Planning Area is shown in Figure 5.14.

Population and Housing

Table 5.4: Coastal Islands Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	4,096	368	9%
Housing Units	2,483	217	9%
Household Size (Average)	2.50	2.27	n/a

Source: 2010 U.S. Census

Table 5.5: Coastal Islands Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	300	82%
Black or African American	4	1%

American Indian and Alaska Native	4	1%
Asian	9	2%
Native Hawaiian and Other Pacific Islander	0	0%
Some Other Race	37	10%
Two or More Races	14	4%
Total	368	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	72	20%
Not Hispanic or Latino	296	80%
Total	368	100%

Source: 2010 U.S. Census

Geography

Santa Catalina Island is characterized by its rugged landscape and a cliffed shoreline. Level terrain is limited to the floors of a few large coastal canyons, such as Avalon, Pebbly Beach, White's Landing, Middle Ranch, Two Harbors, and Emerald Bay. Mt. Orizaba, which is located in the central part of Santa Catalina Island, is the highest peak with an elevation of 2,069 feet.

Transportation Infrastructure

The City of Avalon and the unincorporated community of Two Harbors are the major ports of entry to Santa Catalina Island, and are the primary communities on Santa Catalina Island in terms of population and services. The actual roadway distance is 26 miles through rugged terrain, with an average driving time of 1 hour and 15 minutes. In addition, Santa Catalina Island is accessed via ferry or plane. Santa Catalina Island includes the Santa Catalina Island Airport. Roads in the unincorporated areas of Santa Catalina Island are privately-owned, and access is restricted.

Planning Area Issues

San Clemente Island supports a number of endemic species as well as other species of special interest, which have experienced a resurgence with the Navy's restoration efforts. Land use activities on the Island are regulated by the U.S. Navy.

For Santa Catalina Island, the County and the Santa Catalina Island Company signed a 50-year Open Space Easement Agreement in 1974, which calls for the preservation of Santa Catalina Island's natural character, and improvements to access and recreational opportunities. The Santa Catalina Island Local Coastal Program (LCP), which was adopted in 1983, implements the goals and

requirements of this agreement and ensures that the vast majority of Santa Catalina Island remains in its natural state for future generations to enjoy. The LCP provides multiple policies to improve access to and increase the range of recreational and open space activities, as well as to preserve, protect and conserve Santa Catalina Island's open space and natural resources.

3. East San Gabriel Valley Planning Area

Figure 5.15: East San Gabriel Valley Planning Area Map

Planning Area Profile

Location

The East San Gabriel Valley Planning Area contains the easternmost areas of Los Angeles County, and is located south of the Angeles National Forest, north of the Orange County border, and east of Interstate-605. The Planning Area's eastern border is the San Bernardino County line. The East San Gabriel Valley Planning Area is shown in Figure 5.15.

Population and Housing

Table 5.6: East San Gabriel Valley Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	933,116	234,251	25%
Housing Units	275,604	63,357	23%
Household Size (Average)	3.45	3.78	n/a

Source: 2010 U.S. Census

Table 5.7: East San Gabriel Valley Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	102,440	44%
Black or African American	4,362	2%
American Indian and Alaska Native	1,791	1%
Asian	61,297	26%
Native Hawaiian and Other Pacific Islander	342	0%
Some Other Race	55,603	24%

Two or More Races	8,416	4%
Total	234,251	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	136,104	58%
Not Hispanic or Latino	98,147	42%
Total	234,251	100%

Source: 2010 U.S. Census

Geography

The Planning Area's geography is characterized by valleys and rolling, dry hills. The San Gabriel River runs along the Interstate-605 and the western boundary of the Planning Area. The Puente Hills form the southern border for the Planning Area, and include natural areas and recreational opportunities for the region. The northern portion of the Planning Area is characterized by the steep upgrade and urban-wildland interface with the Angeles National Forest and San Gabriel Mountains.

Transportation Infrastructure

The Planning Area is served by Interstate-10, Interstate/State Route-210 and State Route-60, which provide east-west access and the Interstate-605 and State Route-57, which provide north-south access. The Planning Area is also served by the Metrolink commuter rail Riverside and San Bernardino lines, and Foothill Transit local and regional bus services.

Planning Area Issues

The primary constraints in the Planning Area are a growing shortage of large blocks of developable land and worsening traffic congestion. Many of the traditional suburbs within the Planning Area are maturing and facing infrastructure capacity issues and limited mobility options. Specifically, solid waste and sewerage disposal are concerns. In addition, portions of the City of Diamond Bar, City of Pomona, City of San Dimas, City of Walnut, and the unincorporated areas are on septic systems, which are subject to failure and potential groundwater contamination if not properly maintained. Transportation improvements will be critical for the long-term economic health of the Planning Area. Traffic on the major east-west freeways, including the Interstate-10, Interstate-210 and State Route-60, is heavily congested during peak hours, with commuters generally traveling west in the morning for work and east in the evening to return home.

The Planning Area also includes environmental and hazard constraints. The Puente Hills, which include portions of Rowland Heights and Hacienda Heights, contain fault traces and wildfire threats. Wildfires and landslides also pose safety hazards in the foothill communities. In addition, the Planning Area contains SEAs, including Conceptual SEAs in Hacienda Heights and Rowland Heights.

Opportunity Areas

Figure 5.16: Opportunity Area Map—Avocado Heights

A portion of Valley Boulevard in Avocado Heights, which is located between Temple Avenue and Vineland Avenue, is identified as an Industrial Flex District. This area is shown in Figure 5.16. Although these parcels are currently used for industrial purposes, the shallow parcel sizes will make it difficult for any future high-use industrial redevelopment. There is an opportunity to encourage the development of this area as a supportive commercial use district to adjacent, high-employment work sites.

Figure 5.17: Opportunity Area Map—Charter Oak

Figure 5.17 identifies a corridor opportunity area along Arrow Highway in Charter Oak. Arrow Highway is a major thoroughfare that extends across many local jurisdictions in the San Gabriel Valley, including unincorporated areas. In the community of Charter Oak, Arrow Highway includes mostly residential and a few commercial land uses, and has the potential for improved street and pedestrian improvements. In 2008, SCAG conducted a study on multi-jurisdictional corridor planning that analyzed Arrow Highway. The purpose of the study was to develop strategies to improve multi-jurisdictional coordination, transportation linkages, economic development, and overall street design and amenities.

Figure 5.18: Opportunity Areas Map – Hacienda Heights

The industrial parcels in Hacienda Heights, as shown in Figure 5.18, lie adjacent to heavily industrial districts in the City of Industry to the north. These parcels are being fully utilized for industrial purposes and should remain industrially zoned.

Figure 5.19: Opportunity Areas Map – Rowland Heights

The industrial parcels in Rowland Heights, as shown in Figure 5.19, are fully utilized for industrial purposes and are surrounded by parcels with similarly heavy industrial uses in the City of Industry. This is viable industrial land that should be protected.

Figure 5.20: Opportunity Area Map—South San Jose Hills

Figure 5.20 identifies an Industrial Flex District stretching along Valley Boulevard and bordered to the north by low to medium density residential neighborhoods, and to the south by heavily industrialized parcels in the City of Industry. Much of this area is zoned C-M (Commercial Manufacturing), which allows for less intensive industrial uses as well as other non-industrial uses. Auto repair, auto sales, churches, a mobilehome park, and a large self-service storage facility are some of the non-industrial uses in the area. While there are also some industrial uses, due to the mix of other non-industrial uses as well as the close proximity to the residential neighborhoods, this area should be further studied during the area planning process as there is an opportunity to encourage the development of this area as a supportive commercial use district to the nearby high-employment work sites south of Valley Boulevard in the City of Industry.

4. Gateway Planning Area

Figure 5.21: Gateway Planning Area Map

Planning Area Profile

Location

The Gateway Planning Area is located in the southeastern portion of Los Angeles County. The eastern border of the Planning Area is the Orange County line. The Planning Area contains a number of cities, including the City of Long Beach, as well as a large corridor of industrial areas that lead out of the ports of Los Angeles and Long Beach into Downtown Los Angeles. Unincorporated Rancho Dominguez consists primarily of industrially-designated land. The Gateway Planning Area is shown in Figure 5.21.

Population and Housing

Table 5.8: Gateway Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	1,666,588	103,094	6%
Housing Units	523,365	29,586	6%
Household Size (Average)	3.30	3.58	n/a

Source: 2010 U.S. Census

Table 5.9: Gateway Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	61,748	60%
Black or African American	2,477	2%
American Indian and Alaska Native	1,265	1%
Asian	4,049	4%
Native Hawaiian and Other Pacific Islander	241	0%

Some Other Race	29,029	28%
Two or More Races	4,285	4%
Total	103,094	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	76,782	74%
Not Hispanic or Latino	26,312	26%
Total	103,094	100%

Source: 2010 U.S. Census

Geography

The Planning Area is built out, and has a large percentage of industrial land. The Los Angeles River and San Gabriel River flow through the Planning Area.

Transportation Infrastructure

Interstate-710, which is the primary trucking route for cargo moving to and from the ports of Los Angeles and Long Beach, has increasingly become congested. Projects, such as the Alameda Corridor, demonstrate the importance of inter-jurisdictional efforts to aid in the region's economic development. The Planning Area is also bisected by the Interstate-405, State Route-91, Interstate-5, and Interstate-105. The Port of Long Beach, which combined with the Port of Los Angeles in the South Bay Planning Area, is the busiest container port in the country, creates high volumes of truck and cargo traffic in the Planning Area along Interstate-710. The region is served by Metro and Metrolink rail service.

Planning Area Issues

Industrial uses and trade and logistics from the ports are an important part of the economy of Planning Area; however, the concentration of industrial uses and high truck traffic raises concerns over air and water pollution. As a large economic center with high-wage jobs, it is important to balance environmental and economic concerns in the Planning Area.

The Planning Area also suffers from a lack of parks and recreational opportunities. In certain communities, there is also a lack of multifamily housing opportunities and the need for revitalization.

Opportunity Areas

Figure 5.22: Opportunity Areas Map—Rancho Dominguez

In the industrial community of Rancho Dominguez, the area around the Del Amo Station for the Metro Blue Line can be used to encourage a transit-oriented jobs district, where employees can commute to work on Metro. This transit center opportunity area is depicted in Figure 5.22.

Figure 5.23: Opportunity Areas Map—West Whittier-Los Nietos

Whittier Boulevard in West Whittier-Los Nietos, which is shown in Figure 5.23, is a major commercial corridor in which recent streetscape improvements have reactivated the street and can spur future redevelopment opportunities.

5. Metro Planning Area

Figure 5.24: Metro Planning Area Map

Planning Area Profile

Location

The Metro Planning Area is located in the geographic center of Los Angeles County. The Planning Area is home to and heavily defined by its proximity to Downtown Los Angeles, which includes major corporations and professional firms, tourist and convention hotels, restaurants, retail, and the largest concentration of government offices outside of Washington D.C. The Planning Area is shown in Figure 5.24.

Population and Housing

Table 5.10: Metro Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	1,819,084	306,768	17%
Housing Units	586,832	79,236	14%
Household Size (Average)	3.25	4.09	n/a

Source: 2010 U.S. Census

Table 5.11: Metro Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	118,358	39%
Black or African American	46,725	15%
American Indian and Alaska Native	3,000	1%
Asian	1,829	1%
Native Hawaiian and Other Pacific Islander	332	0%
Some Other Race	126,439	41%

Two or More Races	10,085	3%
Total	306,768	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	254,135	83%
Not Hispanic or Latino	52,633	17%
Total	306,768	100%

Source: 2010 U.S. Census

Geography

The majority of the Planning Area is urbanized, with little variation in elevation. There are no large areas of natural open space. All open space areas are contained with parks and recreational areas. The Los Angeles River and the Compton Creek tributary flow through the Planning Area. These waterways provide an opportunity for enhancement and serve as community assets.

Transportation Infrastructure

The Planning Area is rich in bus services and rail transit. The Metro Blue Line traverses South Los Angeles on a north-south route, with stops in Willowbrook and three stops in Florence-Firestone. The Metro Green Line travels east-west along the Interstate-105, with stops in Willowbrook, Westmont-West Athens, and Lennox. The Metro Gold Line Eastside Extension runs through unincorporated East Los Angeles and the City of Los Angeles. Furthermore, the Metro Expo Line, which connects Culver City and Downtown Los Angeles, and runs along Exposition Boulevard.

Planning Area Issues

The presence of industrial districts in the Planning Area provides a strong foundation for job recovery and job growth, and opportunities for transit-oriented development. The Planning Area also includes a heavily transit-dependent population. However, the Planning Area also faces a number of challenges for mobility, including traffic congestion and the need for improved pedestrian safety and more bicycle facilities. Communities in the Planning Area are urbanized and are generally characterized by challenging physical and economic conditions. In terms of land use, several residential communities abut industrial uses, which create land use compatibility conflicts. The Planning Area, in particular, faces issues of overcrowding. In addition, the Planning Area contains very few natural areas and open spaces. Although infill opportunities exist, many sites have a combination of environmental issues that affect their redevelopment potential. Much of the South Los Angeles is characterized by economically disadvantaged conditions that further hamper private investment and redevelopment. Public investment in redevelopment activities will be an important factor in the economic turnaround of South Los Angeles. For example, many opportunities exist for public-private partnerships to revitalize many of the older, commercial corridors with pedestrian amenities and mixed uses. There are also opportunities along the Metro Gold Line through East Los Angeles.

Opportunity Areas

Figure 5.25: Opportunity Areas Map—East Los Angeles

East Los Angeles is an older, urban community that is rich in history and culture. The community's transit center opportunity area, depicted in Figure 5.25, covers an area along 3rd Street and includes four transit stations along the Metro Gold Line. This area is ripe for complete street improvements, as well as pedestrian-scale and mixed use development that incorporate local commercial-serving uses and multifamily housing. In addition, Figure 5.25 also depicts the Industrial Opportunity Areas and Industrial Flex Districts in the East Los Angeles.

Figure 5.26: Opportunity Areas Map—East Rancho Dominguez

The Planning Area has opportunities for future planning efforts to improve its economic health. As shown in Figure 5.26, Atlantic Avenue and East Compton Boulevard are major commercial corridors with local-serving uses in the community of East Rancho Dominguez.

Figure 5.27: Opportunity Areas Map—Florence-Firestone

Florence-Firestone is home to many opportunity areas, which are depicted in Figure 5.27. Central Avenue, which was once a hub of jazz culture, is in need of investment and redevelopment. The three-mile corridor is along the western border of Florence-Firestone, and abuts the City of Los Angeles. The northern portion of the corridor is comprised of industrial and auto-related uses, and the southern portion of the corridor is predominantly commercial and residential. An abundant amount of vacant and underutilized land, coupled with the City of Los Angeles' efforts in the corridor, and the location of the Slauson, Florence and Firestone stations for the Metro Blue Line, make the area prime for transit-oriented development and economic revitalization.

Figure 5.28: Opportunity Areas Map—Walnut Park

Figure 5.28 identifies the opportunity areas in the community of Walnut Park. Florence Avenue and Pacific Boulevard are active local commercial corridors that border the City of Huntington Park and the City of South Gate. The area supplies much of the retail, restaurants and services to the residents who live nearby. These corridors are considered opportunity areas because of their proximity to the Florence Station for the Metro Blue Line and the opportunity for increased design, pedestrian and bicyclist improvements, such as street trees, lighting and bicycle lanes.

Figure 5.29: Opportunity Areas Map—West Athens-Westmont

The transit center around the Vermont Station for the Metro Green Line in West Athens-Westmont, as identified in Figure 5.29, presents an opportunity to capitalize on infrastructure investments in a community with high ridership. Vermont Avenue has the potential for increased economic vitality through the creation of employment-rich activities along the commercial corridors that are adjacent to the Metro station. In addition, the residential areas within the transit center would benefit from increased pedestrian amenities and design improvements. The width of Vermont Avenue, in particular, provides major opportunities for pedestrian and bicyclist improvements. Imperial Highway

also connects the transit center opportunity area to the areas around the intersection of Western Avenue and Imperial Highway, which provide additional opportunities for design improvements.

Figure 5.30: Opportunity Areas Map—West Rancho Dominguez-Victoria

The intersection of El Segundo Boulevard and Avalon Boulevard in West Rancho Dominguez-Victoria, as shown in Figure 5.30, has the potential to become an active local neighborhood center. The surrounding community is rich with public amenities, such as the Earvin Magic Johnson Park and the A.C. Bilbrew Library. In addition, the area has many multifamily sites, as well as vacant and underutilized commercial sites along El Segundo Boulevard.

Figure 5.31: Opportunity Areas Map—Willowbrook

Significant opportunities exist in Willowbrook, particularly in the area surrounding the Martin Luther King, Jr. Multi-Service Ambulatory Care Center (MLK-MACC), as identified in Figure 5.31. The rehabilitation and reuse of the site could be a catalyst for further redevelopment. Neighborhood amenities that support healthcare services and office uses, as well as connectivity with the nearby Rosa Parks Metro Blue/Green Line Station will be important factors in future planning activities in the area.

6. San Fernando Valley Planning Area

Figure 5.32: San Fernando Valley Planning Area Map

Planning Area Profile

Location

The San Fernando Valley Planning Area is bordered by the Santa Clarita Valley and the Angeles National Forest to the north, and the Santa Monica Mountains Planning Area and Westside Planning Area to the south. The Ventura County line is the western border of the Planning Area, and the San Gabriel Valley and Downtown Los Angeles make up the eastern border. The San Fernando Valley Planning Area is shown in Figure 5.32.

Population and Housing

Table 5.12: San Fernando Valley Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	1,749,325	5,137	0%
Housing Units	630,556	2,195	0%
Household Size (Average)	2.91	2.72	n/a

Source: 2010 U.S. Census

Table 5.13: San Fernando Valley Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	3,855	75%
Black or African American	148	3%
American Indian and Alaska Native	35	1%
Asian	498	10%
Native Hawaiian and Other Pacific Islander	8	0%
Some Other Race	321	6%

Two or More Races	272	5%
Total	5,137	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	1,118	22%
Not Hispanic or Latino	4,019	78%
Total	5,137	100%

Source: 2010 U.S. Census

Geography

The San Fernando Valley Planning Area has several distinguishing geographic characteristics. Almost the entire Planning Area is ringed with distinct hillsides and mountain ranges, including the Santa Susana Mountains to the northwest, the Simi Hills to the west, the Santa Monica Mountains and Chalk Hills to the south, the Verdugo Mountains to the east, and the San Gabriel Mountains to the northeast. Looking southeast, highrises from Downtown Los Angeles can be seen from some neighborhoods, passes, and parks in the San Fernando Valley.

The Los Angeles River begins at the confluence of Calabasas Creek and Bell Creek and flows eastward along the southern regions of the Planning Area. One of the Los Angeles River's two unpaved sections can be found at the Sepulveda Basin. The seasonal river, the Tujunga Wash, drains much of the western facing San Gabriel Mountains, and passes through the Hansen Dam Recreation Center in Tujunga, south along the Verdugo Mountains, through the eastern communities of the Planning Area to join the Los Angeles River in Studio City. Mulholland Drive, which runs along the ridgeline of the Santa Monica Mountains, marks the boundary between the Planning Area and Hollywood and the westside of the City of Los Angeles.

Transportation Infrastructure

The development pattern in the Planning Area is almost exclusively suburban, and driving is the dominant mode of transportation. Several freeways cross the Planning Area, most notably, Interstate-405, U.S. Route-101, State Route-118, and Interstate-5. The Planning Area includes the Universal City Station and North Hollywood Station along the Metro Red Line. The Metro Orange Line, which is an east-west rapid transit busway, connects the North Hollywood Station to points west of the Planning Area. Two Metrolink commuter rail lines connect the Planning Area to Downtown Los Angeles. Amtrak's Pacific Surfliner has stations at Burbank Airport, Van Nuys and Chatsworth. Several Metro Rapid bus lines also serve the area.

Planning Area Issues

Only a small portion of the Planning Area is unincorporated. These communities are primarily low-density, suburban communities, with the exception of the Universal Studios Specific Plan area, and Oat Mountain, which is primarily vacant land except for utility facilities. Many of these communities are near environmentally-sensitive and hazardous areas. One of the main hazards facing these communities is wildfires. Sylmar Island, Lopez Canyon, Kagel Canyon, and large portions of Oat

Mountain, Westhills, and the Universal Studios Specific Plan area are located within Very High Fire Hazard Severity Zones. In addition, portions of the Planning Area include SEAs. Economic challenges facing the Planning Area include an ongoing decline in manufacturing jobs, a shortage of new or improved industrial and office space, and worsening traffic congestion.

7. Santa Clarita Valley Planning Area

Figure 5.33: Santa Clarita Valley Planning Area Map

Planning Area Profile

Location

The Santa Clarita Planning Area is bordered to the west by the Ventura County line, to the north by the Los Padres National Forest and Angeles National Forest, to the east by the Angeles National Forest, and to the south by a major ridgeline that separates the Santa Clarita Valley from the San Fernando Valley. The Planning Area includes over 480 square miles, of which about 195 square miles are unincorporated. The Planning Area is located approximately 30 to 40 miles northwest of Downtown Los Angeles. The Santa Clarita Valley Planning Area is shown in Figure 5.33.

Population and Housing

Table 5.14: Santa Clarita Valley Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	271,227	94,907	35%
Housing Units	91,094	29,039	32%
Household Size (Average)	3.02	3.14	n/a

Source: 2010 U.S. Census

Table 5.15: Santa Clarita Valley Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	58,135	61%
Black or African American	6,283	7%
American Indian and Alaska Native	464	0%
Asian	13,230	14%
Native Hawaiian and Other Pacific Islander	135	0%
Some Other Race	12,001	13%
Two or More Races	4,659	5%
Total	94,907	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	26,041	27%
Not Hispanic or Latino	68,866	73%
Total	94,907	100%

Source: 2010 U.S. Census

Geography

The Planning Area is framed by the San Gabriel, Santa Susana, and Sierra Pelona mountain ranges, and the Angeles National Forest. The Santa Clara River flows from east to west from its headwaters near Acton to the Pacific Ocean. The Planning Area contains multiple geographic constraints to development, including large swaths of land that are covered by steep hillsides, SEAs, and Very High Fire Hazard Severity Zones.

Transportation Infrastructure

The Planning Area is located at the convergence of several major transportation and utility facilities. The Southern Pacific Railroad, Interstate-5 and State Route-14, and two major aqueducts traverse the Planning Area. In addition, the Metrolink Antelope Valley Line has three station stops, which are located in the City of Santa Clarita. The Agua Dulce Airport is also located in the unincorporated community of Agua Dulce. Additionally, major oil, natural gas, and power lines transect the Planning Area.

Planning Area Issues

Despite the sensitive and hazardous environment, the Planning Area is one of the fastest growing areas in Los Angeles County. In the last 10 years, approximately 33,500 housing units have been approved in the unincorporated portions of the Planning Area. Due to this rapid growth, the Planning Area faces multiple challenges related to infrastructure planning, preservation of open space and biological diversity, jobs-housing balance, reducing vehicle miles traveled, and coordination of public services and facilities.

8. Santa Monica Mountains Planning Area

Figure 5.34: Santa Monica Mountains Planning Area Map

Planning Area Profile

Location

The Santa Monica Mountains Planning Area covers the scenic Santa Monica Mountains and the shoreline along the Pacific Coast to the Ventura County line to the north and west, and up to the San Fernando Valley to the north. The eastern border is the Westside Planning Area and the City of Los Angeles. Some of the unincorporated communities within the Planning Area include: Malibou Lake, Monte Nido, Malibu Vista, Old Topanga, and Topanga. The Santa Monica Mountains Planning Area is shown in Figure 5.34.

Population and Housing

Table 5.16: Santa Monica Mountains Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	85,785	19,222	22%
Housing Units	34,529	7,081	21%
Household Size (Average)	2.62	2.64	n/a

Source: 2010 U.S. Census

Table 5.17: Santa Monica Mountains Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	16,524	86%
Black or African American	440	2%
American Indian and Alaska Native	72	0%
Asian	1,015	5%
Native Hawaiian and Other Pacific Islander	11	0%
Some Other Race	418	2%

Two or More Races	742	4%
Total	19,222	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	1,551	8%
Not Hispanic or Latino	17,671	92%
Total	19,222	100%

Source: 2010 U.S. Census

Geography

The Planning Area provides recreational opportunities, such as hiking, bicycling, birding, horseback riding, swimming and camping, on county, federal, and state parks and beaches, as well as privately-held conservancy land. The Santa Monica Mountains contain many environmentally sensitive areas.

Transportation Infrastructure

U.S. Route-101 and the Pacific Coast Highway (Highway 1) are the two major roads that serve the Planning Area. There are many scenic roads throughout the Planning Area, two of which are state-designated scenic corridors: two portions of Mulholland Highway and the Malibu Canyon-Las Virgenes Highway.

Planning Area Issues

The Planning Area's natural beauty comes with multiple environmental issues and numerous natural hazards. The Planning Area contains an SEA and SERAs. Development pressures, particularly in the Santa Monica Mountains, sometimes result in a conflict between habitat protection and development. Maintaining recreational areas, protecting environmentally-sensitive lands, expanding public access to the coast, and protecting residents from natural hazards are priorities in the Santa Monica Mountains Planning Area. In addition, a majority of the Planning Area is designated a Very High Fire Hazard Severity Zone. The Santa Monica Mountains are frequently struck by wildfires, which threaten the safety of people living along the Mountains' winding, narrow roads, which are often in very isolated locations. The Santa Monica Mountains are also subject to slope failure due to their geology and steep topography, particularly during rainstorms. Wildfire threats combined with limited road access pose dangers for area residents.

9. South Bay Planning Area

Figure 5.35: South Bay Planning Area Map

Planning Area Profile

Location

The South Bay Planning Area is located in the southwest corner of Los Angeles County. The Pacific Ocean provides the western border and the Gateway Planning Area and Metro Planning Area provide the eastern and northern borders. The Westside Planning Area lies directly north of the Planning Area. The South Bay Planning Area is shown in Figure 5.35.

Population and Housing

Table 5.18: South Bay Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	1,016,674	69,612	7%
Housing Units	373,187	21,348	6%
Household Size (Average)	2.83	3.31	n/a

Source: 2010 U.S. Census

Table 5.19: South Bay Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	29,592	43%
Black or African American	4,711	7%
American Indian and Alaska Native	539	1%
Asian	10,133	15%
Native Hawaiian and Other Pacific Islander	697	1%
Some Other Race	20,508	29%

Two or More Races	3,432	5%
Total	69,612	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	40,504	58%
Not Hispanic or Latino	29,108	42%
Total	69,612	100%

Source: 2010 U.S. Census

Geography

The majority of the Planning Area is comprised of low-level areas of the Los Angeles basin. The Palos Verde Peninsula is covered with hills, open spaces and communities that abut cliffs and rocky shorelines along the Pacific Coast.

Transportation Infrastructure

The Planning Area is served mainly by four major freeways: Interstate-105, Interstate-405, Interstate-110, and State Route-91. The Metro Green Line also serves the Planning Area. Other transportation facilities in the region include Torrance Municipal Airport-Zamperini Field and Hawthorne Municipal Airport. The Los Angeles International Airport (LAX) is located in the northern portion of the Planning Area. The Port of Los Angeles is also located in the Planning Area.

Planning Area Issues

Issues facing the Planning Area include traffic congestion, limited public transportation options, air quality concerns, and a lack of developable land. Also, due to the region's proximity and inclusion of major transportation hubs—LAX and the ports of Long Beach and Los Angeles—goods movement has become an important part of the Planning Area's economy. However, goods movement also creates planning and environmental challenges. While physical infrastructure improvements are needed to ensure that freeways and streets are adequate to serve increased truck volumes, the massive increase in cargo volume has created significant air pollution impacts to neighboring communities. In addition, petroleum refining is a significant source of air pollution in the region.

Although manufacturing still plays an important role in the region's economy, certain communities have witnessed a decline in manufacturing/industrial uses in recent years. This creates both brownfield redevelopment potential and land use planning challenges. For instance, in unincorporated West Carson, abandoned industrial sites have been redeveloped into multifamily residential uses, which creates land use incompatibility between the new high-density residential developments and the adjacent active industrial uses. The Planning Area's proximity to LAX, one of the busiest airports in the world, also creates a unique land use planning challenge to the region. Neighboring communities, including unincorporated Lennox and Del Aire, will need to continue their efforts to mitigate the noise impacts generated by aircraft on predominately lower density residential areas.

Opportunity Areas

Figure 5.36: Opportunity Area Map—Alondra Park

The Crenshaw Boulevard corridor, depicted in Figure 5.36, only covers a small portion of Alondra Park, but includes a range of commercial uses and has potential for pedestrian-scale and mixed use development. In addition, Alondra Park is home to El Camino Community College, which makes this corridor an important connector for commuting students, faculty and staff. Future planning efforts must be closely coordinated with the City of Gardena, which has jurisdiction over the eastern portion of Crenshaw Boulevard.

Figure 5.37: Opportunity Area Map—Del Aire

The Del Aire opportunity area includes the Aviation/LAX Station on the Metro Green Line and a corridor along Inglewood Avenue. As shown in Figure 5.37, the transit center around the Metro station provides opportunities to activate the land uses adjacent to the station and provide design improvements, including pedestrian and bicycle amenities. Inglewood Avenue, as an existing commercial corridor with a mix of uses, including neighborhood-serving businesses, also provides opportunities for mixed use development, as well as design improvements for pedestrians and bicyclists.

Figure 5.38: Opportunity Area Map—Lennox

The Metro Green Line also includes the Hawthorne Station in Lennox. As shown in Figure 5.38, the corridor along Hawthorne Boulevard and the area at the intersection of Hawthorne Boulevard and Lennox Boulevard, within the transit center, provide opportunities for mixed uses, as well as design improvements.

Figure 5.39: Opportunity Area Map—West Carson

West Carson is home to many opportunity areas in the South Bay Planning Area, which are identified in Figure 5.39. Portions of West Carson have undergone transition from a warehousing and distribution center servicing the Port of Los Angeles, to a higher density residential community impacted by the rapid growth of the nearby City of Torrance and City of Carson. An Industrial Flex District identifies an area with an opportunity for industrial uses to transition to non-industrial uses through future planning efforts. Harbor-UCLA Medical Center, also located in West Carson, is a major employer and activity center in the area. Planned future expansions of the medical facility, as well as its proximity to the Metro Silver Line, provide redevelopment and infill opportunities in the surrounding neighborhoods.

10. West San Gabriel Valley Planning Area

Figure 5.40: West San Gabriel Valley Planning Area Map

Planning Area Profile

Location

The Angeles National Forest is the northern border of the West San Gabriel Valley Planning Area, while Downtown Los Angeles and the Gateway Planning Area make up the southern border. The eastern border of the Planning Area is roughly Interstate-605. The West San Gabriel Valley Planning Area is shown in Figure 5.40.

Population and Housing

Table 5.20: West San Gabriel Valley Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	915,196	122,834	13%
Housing Units	319,288	43,239	14%
Household Size (Average	2.99	2.98	n/a

Source: 2010 U.S. Census

Table 5.21:West San Gabriel Valley Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	60,555	49%
Black or African American	11,748	10%
American Indian and Alaska Native	689	1%
Asian	29,338	24%
Native Hawaiian and Other Pacific Islander	121	0%
Some Other Race	14,911	12%

Two or More Races	5,472	4%
Total	122,834	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	36,762	30%
Not Hispanic or Latino	86,072	70%
Total	122,834	100%

Source: 2010 U.S. Census

Geography

The Planning Area includes the San Gabriel Mountains and Angeles National Forest, and provides a large range of open space and recreational opportunities for area residents. The San Gabriel River flows north-south along the Planning Area's eastern border and Interstate-605. The Planning Area is almost entirely developed with historically suburban developments.

Transportation Infrastructure

Two major east-west freeways, Interstate-10 and Interstate/State Route-210, run through the Planning Area. In addition, the Metro Gold Line traverses the City of Pasadena and terminates adjacent to unincorporated East Pasadena-East San Gabriel. Metro has also approved the expansion of the Gold Line light rail to several communities in the Planning Area. Other available transit options include Foothill Transit, which operates multiple bus lines throughout the Planning Area. The El Monte Airport is also located in the Planning Area.

Planning Area Issues

The Planning Area is comprised of mature, suburban communities, including some in the foothills of the San Gabriel Mountains. Some of these communities contain environmental resources and others face hazardous constraints. Portions of the Altadena Foothills and Arroyos SEA, San Gabriel Canyon SEA, and Puente Hills SEA cover the Planning Area. The community of Altadena includes Conceptual SEAs. In addition, many of the foothill communities are designated Very High Fire Hazard Severity Zones, which reflects the increased threat of wildfires and subsequent mudslides within those areas.

Many of the unincorporated areas are isolated islands of almost entirely residential development. It is important to integrate these islands into the fabric of their surrounding communities, where many of the services and daily needs of the unincorporated residents are met.

Opportunity Areas

Figure 5.41: Opportunity Area Map—Altadena

Located in the heart of Altadena, Lake Avenue, between Altadena Drive and New York Drive, as shown in Figure 5.41, is a commercial corridor with various community-serving businesses, such as retail commercial, restaurants, services, and small professional offices.

Figure 5.42: Opportunity Area Map—East Pasadena-East San Gabriel

The intersection of Colorado Boulevard and Rosemead Boulevard in East Pasadena–East San Gabriel is an active local commercial center. Due to its proximity to the Sierra Madre Villa Station on the Metro Gold Line, this area has the opportunity for increased pedestrian and bicyclist improvements, as well as more transit-oriented developments. In addition, along Rosemead Boulevard, there is also a variety of retail commercial, restaurants, services and apartment complexes. This corridor is considered an opportunity area because it can serve as an extension of the transit center opportunity area, both of which are identified in Figure 5.42.

Figure 5.43: Opportunity Area—La Crescenta-Montrose Map

Foothill Boulevard in La Crescenta-Montrose, as shown in Figure 5.43, is an active local commercial corridor. The corridor supplies much of the retail, restaurants and services to nearby residents. This corridor is considered an opportunity area for increased design, pedestrian and bicyclist improvements, such as street trees, lighting and bicycle lanes.

Figure 5.44: Opportunity Area Map—South Monrovia Islands

Although Live Oak Boulevard in unincorporated South Monrovia Islands only covers a few blocks, it is part of a major corridor that runs from the City of Arcadia to the west and the City of Irwindale to the east, as shown in Figure 5.44. The corridor provides much of the retail, restaurants and services to nearby residents. This corridor is considered an opportunity area for its potential for increased design, pedestrian and bicyclist improvements, such as street trees, lighting, and bicycle lanes.

11. Westside Planning Area

Figure 5.45: Westside Planning Area Map

Planning Area Profile

Location

The Westside Planning Area covers the coastal communities, including Marina del Rey, the westside of the City of Los Angeles, and other small cities, such as the City of Santa Monica, City of Beverly Hills, and City of West Hollywood. The Westside Planning Area is shown in Figure 5.45.

Population and Housing

Table 5.22: Westside Planning Area, Population and Housing, 2010

	Planning Area	Unincorporated Area	Percentage Unincorporated
Population	974,646	27,407	3%
Housing Units	482,821	14,564	3%
Household Size (Average)	2.13	2.05	n/a

Source: 2010 U.S. Census

Table 5.23: Westside Planning Area, Race and Ethnicity, 2010

Race	Unincorporated Area Population	Percentage
White	9,157	33%
Black or African American	14,981	55%
American Indian and Alaska Native	105	0%
Asian	1,236	5%
Native Hawaiian and Other Pacific Islander	18	0%
Some Other Race	572	2%
Two or More Races	1,338	5%

Total	27,407	100%

Ethnicity	Unincorporated Area Population	Percentage
Hispanic or Latino	1,907	7%
Not Hispanic or Latino	25,500	93%
Total	27,407	100%

Source: 2010 U.S. Census

Geography

The western portion of the Planning Area is comprised of a string of beaches and Marina del Rey. The Planning Area contains one of the few remaining wetlands in Ballona Creek. The eastern portion of the Planning Area includes the Baldwin Hills and Kenneth Hahn State Park, which provide natural areas and recreational opportunities for area residents. Marina del Rey is the largest, man-made small boat harbors in the country and is bounded by the City of Los Angeles.

Transportation Infrastructure

Opportunities for new development are being explored along planned Metro line expansions that will bring rail transit to the Planning Area. Although the Planning Area is served by multiple bus routes, it is not served by rail service and is impacted by traffic congestion. The Metro Expo Line serves the Planning Area, including stations at the University of Southern California, Exposition Park, Culver City, the Crenshaw District, and connection to Downtown Los Angeles. In addition, there are two airports in the Planning Area: LAX and the Santa Monica Municipal Airport. Marina del Rey is a popular and highly active small boat harbor with 19 marinas with room for roughly 5,300 boats.

Planning Area Issues

Significant environmental resources exist in the Planning Area, most notably the Ballona Wetlands, which are threatened by potential sea level rise due to climate change. Marina del Rey faces traffic congestion and housing affordability issues; however, protection of the coastline and fish and wildlife resources is unique to this coastal community. Large portions of the area, including Marina del Rey, are located in a liquefaction zone. Marina del Rey is also in a tsunami hazard zone and is particularly susceptible to the negative impacts of climate change. In addition, most of Ladera Heights / View Park–Windsor Hills is in a Very High Fire Hazard Severity Zone. There is also a fault trace running through this community. The Planning Area also includes a large urban oil field in Baldwin Hills.

Traffic congestion is one of the biggest issues facing the Planning Area. The Metro Expo Line runs through Culver City to the westside of the City of Los Angeles, but the popular and populous northern routes are not served by rail transit. Another issue is the relatively high cost of land and housing. The Planning Area is seen as a desirable place to live and do business, but there is little land for new development and costs are high.

Opportunity Areas

Figure 5.46: Opportunity Area Map—Ladera Heights/View Park—Windsor Hills

The Slauson Boulevard opportunity area in Ladera Heights/View Park–Windsor Hills, shown in Figure 5.46 is a commercial corridor with a major commercial center at the intersection of Overhill Drive. The area is characterized by a mix of large parcels with regional commercial activities and local-serving retail services and offices. Significant pedestrian improvements and commercial corridor revitalization are needed to create an attractive, walkable center with linkages to nearby residential neighborhoods.

Figure 5.47: Opportunity Area Map—Sawtelle - VA

The Sawtelle – VA opportunity area, shown in Figure 5.47, is a transit center in anticipation for the extension of the Purple Line.

[Text Box]

Impacts of Social and Economic Factors on Health

The report on "How Social and Economic Factors Affect Health," published by the County Department of Public Health, demonstrates the impact of social determinants on the overall health of Los Angeles County, as well as disparities in health, and the importance of active multi-sectoral partnerships. The report is available at http://www.publichealth.lacounty.gov/epi/reports.htm.

Part III: General Plan Elements

Chapter 6: Land Use Element

I. Introduction

The Land Use Element provides strategies and planning tools to facilitate and guide future development and revitalization efforts. In accordance with the California Government Code, the Land Use Element designates the proposed general distribution and general location and extent of uses. The General Plan Land Use Policy Map and Land Use Legend serve as the "blueprint" for how land will be used to accommodate growth and change in the unincorporated areas.

II. Background

Land Uses

As shown in Table 6.1, more than half of the unincorporated area is designated for natural resources. The next largest is rural, which accounts for approximately 39 percent of the unincorporated areas, followed by residential, which accounts for approximately three percent of the unincorporated areas.

Table 6.1: General Land Use Categories, by Acreage

General Land Use Categories	Acres
Residential	51,480
Rural	641,321
Commercial	5,268
Industrial	7,304
Natural Resources*	844,224
Public and Semi-Public	79,920
Mixed Use	291
Specific Plan**	13,556
Other***	1,080
Total:	1,644,444

*Natural Resources includes all natural resource and categories (including natural areas, developed parks, waterways, golf courses, etc.), and military areas (San Clemente Island and Edwards AFB).

** Specific Plans include a combination of land uses.

** Some area and community plans have special categories that do not fit into the scheme of the Land Use Legend categories (such as "special use sites," parking areas, senior citizen density bonus areas, etc.)

General Plan Amendments and Implementation Tools

As the constitution for local development, the General Plan guides all activities that affect the physical environment.

General Plan Amendments

The General Plan will be amended periodically and through a comprehensive, community-based effort to address changes to community priorities, demographics or economic trends. Project-specific amendments must be consistent with the General Plan's overall intent, goals and policies.

Subdivision and Zoning Codes (Title 21 and 22)

The County's Zoning Code, Subdivision Code, and zoning map are implementation tools of the General Plan that provide details on specific allowable uses, design and development standards, and procedures. Zoning and subdivision regulations govern the division, design and use of individual parcels of land, including minimum lot size, lot configuration, access, height restrictions, and yard setbacks standards for structures.

For more information on the Los Angeles County Subdivision and Zoning codes (Titles 21 and 22), please visit the Los Angeles County Department of Regional Planning's web site at http://planning.lacounty.gov.

Specific Plans

A specific plan is a tool to systematically implement the General Plan within an identified project area. Specific plans are used to ensure that multiple property owners and developers adhere to a common plan or coordinate multiple phases of a long-term development. Specific plans must further the goals and policies of the General Plan. Specific plans must be consistent with the General Plan. No local public works project may be approved, no tentative map or parcel map for which a tentative map was not required may be approved, and no zoning ordinance may be adopted or amended within an area covered by a specific plan unless it is consistent with the adopted specific plan.

California Government Code Sections 65450 et seq. require specific plans to include text and a diagram(s) to detail the following:

- Distribution, location, and extent of the uses of land, including open space, within the project area;
- Proposed distribution, location and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the project area and needed to support the land uses described in the specific plan;
- Standards and criteria by which development will proceed and, where applicable, standards for conservation, development, and utilization of natural resources; and

- Implementation measures, including regulations, programs, public works projects, and financing measures necessary to carry out the above.

Specific plans must include a statement of the relationship of the specific plan to the General Plan, and may also include provisions regarding affordable housing, resource management, development requirements or any other matter relevant to the project area. In addition, a specific plan must be prepared, adopted, and amended in the same manner as a general plan, except that a specific plan may be adopted by resolution or by ordinance and may be amended as often as deemed necessary by the Board of Supervisors. A specific plan may be repealed in the same manner as it is required to be amended. Furthermore, a specific plan may be initiated by the public or private sector; however, the responsibility for the adoption, amendment, and repeal lies with the Board of Supervisors.

The Specific Plan Overlay in the General Plan Land Use Legend identifies the boundaries and shows the relationship of specific plans to the General Plan Land Use Policy Map.

The following is a list of specific plans in the unincorporated areas:

- Canyon Park Specific Plan
- East Los Angeles Third Street Plan and Form-Based Code Specific Plan
- La Viña Specific Plan
- Marina del Rey Specific Plan (component of Local Coastal Program)
- Santa Catalina Island Specific Plan (component of Local Coastal Program)
- Northlake Specific Plan
- Newhall Ranch Specific Plan
- Universal Studios Specific Plan

Development Agreements

A development agreement is a negotiated contract between the County and a private developer that, among other things, secures land use and zoning regulations for the duration of the agreement. A development agreement provides assurance to an applicant that a development project may proceed in accordance with existing policies, rules and regulations, and conditions of approval in effect at the time the agreement is adopted. The agreement in turn allows the County to negotiate a wider range of public benefits, including but not limited to, affordable housing, civic art, open space, or other amenities not authorized or required by current ordinances.

A development agreement must specify the duration of the agreement, the permitted uses of the property, the density or intensity of use, the maximum height and size of proposed buildings, and provisions for reservation or dedication or land for public purposes. It may include fees, conditions, terms, restrictions, and requirements for subsequent discretionary actions. However, any future actions must not prevent the development of the land for the uses and the density or intensity of development set forth in the agreement. Furthermore, the agreement may also include timeframes for commencing or completing construction, and terms and conditions for financing necessary public facilities and subsequent reimbursement.

Government Code Sections 65865 et seq. authorize the Board of Supervisors to adopt development agreements. At the time of adoption, a development agreement must be consistent with the General Plan and any applicable specific plan.

Special Management Areas

The County's Special Management Areas require additional development regulations to prevent the loss of life and property, and to protect the natural environment and important resources. The County's Special Management Areas are shown in Figure 6.1.

The General Plan minimizes risks to hazards and discourages development in Special Management Areas through goals and policies. The Hazard, Environmental and Resource Constraints Model, which is a visual representation of some of the Special Management Areas, can be used to inform applicants and property owners of potential site constraints, as well as to guide community-based planning efforts. For more information on the Hazard, Environmental and Resource Constraints Model, please refer to Appendix C.

Figure 6.1: Special Management Areas Policy Map

Special Management Areas are comprised of the following:

Agricultural Resource Areas

Agricultural Resource Areas (ARAs) consist of farmland identified by the California Department of Conservation and farms that have received permits from the County Agricultural Commissioner/Weights and Measures. The County encourages the preservation and sustainable utilization of agricultural land, agricultural activities, and compatible uses within these areas. ARAs are described in greater detail in the Conservation and Natural Resources Element.

Airport Influence Areas

Airport Influence Areas are comprised of airport property, runway protection zones, and noise contours. With certain exceptions, all developments located in an Airport Influence Area are subject to review by the Los Angeles County Airport Land Use Commission (ALUC) for compliance with noise and safety regulations, per Title 21 of the California Code of Regulations. The Airport Influence Areas are shown in Figure 6.2.

Figure 6.2: Airport Influence Areas Policy Map

Coastal Zone

The coastal zones comprised of land and water areas regulated by the California Coastal Commission. There are five unincorporated areas in the coastal zone: Santa Catalina Island, Marina del Rey, Santa Monica Mountains, Ballona Wetlands, and San Clemente Island. In accordance with the California Coastal Act, all development within the coastal zone must first obtain a Coastal Development Permit (CDP). Local Coastal Programs (LCPs) establish detailed land use policy and development standards within their respective coastal zone segments.

The County has certified LCPs for Santa Catalina Island and Marina del Rey. In areas where an LCP has not yet been certified, specific development proposals are reviewed by the County for

consistency with the General Plan, but the final authority to issue CDPs lies with the California Coastal Commission.

In the coastal zone, the County has designated several types of coastal resources that are important to protect. These resources include: Environmentally Sensitive Habitat Areas; Significant Woodlands and Savannahs; Significant Watersheds; the Malibu Cold Creek Resource Management Area; and the Wildlife Migration Corridor. Coastal resources are described in greater detail in the Conservation and Natural Resources Element.

Historic, Cultural and Paleontological Resources

Historic, Cultural and Paleontological Resources include historic buildings, structures, Native American artifacts or sites, and districts of historical, architectural, archaeological, or paleontological significance that are officially recognized by the California Office of Historic Preservation or identified in authoritative surveys of archaeological societies, historical societies, or academic studies. Historic, Cultural and Paleontological Resources are described in greater detail in the Conservation and Natural Resources Element.

Flood Hazard Zones

Flood Hazard Zones are areas subject to flooding. The Federal Emergency Management Agency (FEMA) delineates flood hazard zones as special hazard areas, or areas of moderate or minimal hazard on flood insurance rate maps. Flood Hazard Zones are described in greater detail in the Safety Element.

Mineral Resource Zones

Mineral Resource Zones are commercially viable mineral or aggregate deposits, such as sand, gravel, and other construction aggregate. The County's Mineral Resources consist of the California Geological Survey's identified deposits of regionally significant aggregate resources. Mineral Resource Zones are described in greater detail in the Conservation and Natural Resources Element.

Military Influence Areas

The U.S. Department of Defense is responsible for thousands of acres within Los Angeles County, including installations and facilities. Coordination between the County and the U.S. Department of Defense is important to ensure compatibility between military influence areas, and adjacent land uses. The management of natural resources within military installations and operation areas are described in greater detail in the Conservation and Natural Resources Element.

A Military Operation Area (MOA) is a three-dimensional airspace designated for military training and transport activities that have a defined floor (minimum altitude) and ceiling (maximum altitude). Within Los Angeles County, there are several MOAs used by military aircraft to practice high and low altitude training exercises and travel routes between military installations. Additionally, in and around MOAs, testing is conducted to maintain military readiness. A High Risk of Adverse Impact Zone (HRAIZ) depicts the Air Force area of interest for wind development within Los Angeles County. The 412th Test Wing Mission at Edwards Air Force Base provides full spectrum aircraft research, development, test, and evaluation capabilities. Wind turbines built within the radio frequency line of sight of related systems can create significant adverse impacts to test and evaluation activities depending on vertical height, electromagnetic sensitivity and distance from activities conducted on the range.

In guiding growth and development in the unincorporated areas, it is important to consider the critical role of MOAs and HRAIZs in support of national defense. The General Plan considers all future land uses that seriously impact or hinder the military's training and testing capabilities to be incompatible land uses.

Figure 6.3: Military Influence Areas Map

National Forests

The Los Padres National Forest and Angeles National Forest encompass nearly 650,000 acres of land within Los Angeles County. Nearly 40,000 acres are privately-owned. For these parcels, commonly referred to as in-holdings, the County retains responsibility for land use regulation. Privately-owned parcels in the national forests are regulated consistently with the overall mission and management plans of the national forests, which the U.S. Forest Service prepares and periodically updates. The national forests are described in greater detail in the Conservation and Natural Resources Element.

Open Space Resource Areas

Open Space Resource Areas refer to public and private lands, and waters that are preserved in perpetuity or for long-term open space and recreational uses. Existing open spaces in the unincorporated areas include County parks and beaches, conservancy lands, state parklands, and federal lands. Open spaces can also include deed-restricted open space parcels and easements. Open Space Resource Areas are described in greater detail in the Conservation and Natural Resources Element.

Scenic Resources

The County recognizes that scenic features in the region, such as the coastline and mountain vistas are significant natural resources for the County. One type of scenic resource is the Hillside Management Areas (HMAs), which are mountainous or foothill terrain with a natural slope of 25 percent or greater. The purpose of the Hillside Management Ordinance in Title 22 of the County Code is to regulate development within Hillside Management Areas to 1) protect the public from natural hazards associated with steep hillsides, and 2) to minimize the effects of development and grading on the scenic resources. In addition to HMAs, the General Plan protects ridgelines, scenic viewsheds, and areas along scenic highways. Scenic resources are described in greater detail in the Conservation and Natural Resources Element.

Seismic and Geotechnical Hazard Zones

Seismic and Geotechnical Hazard Zones include active and potentially active faults identified by the California Geological Survey (formerly the Division of Mines and Geology) under the provisions of the Alquist-Priolo Earthquake Fault Zones Act (California Public Resources Code, Division 2, Chapter 7.5), as well as faults that are considered active based on published and unpublished information. The Seismic and Geotechnical Hazard Zones also include seismically-induced liquefaction and landslide areas. Seismic and Geotechnical Hazard Zones are described in greater detail in the Safety Element.

Significant Ecological Areas and Coastal Resource Areas

A Significant Ecological Area (SEA) designation is given to land in the County that contains irreplaceable biological resources. Cumulatively, the 21 SEAs and nine Coastal Resource Areas (CRAs) represent the wide-ranging biodiversity of Los Angeles County, and contain its most important biological resources. Individual SEAs include undisturbed or lightly disturbed habitat that support valuable and threatened species, linkages and corridors that facilitate species movement, and are sized to support sustainable populations of its component species. SEAs and CRAs are described in greater detail in the Conservation and Natural Resources Element.

Very High Fire Hazard Severity Zones

Very High Fire Hazard Severity Zones (VHFHSZ) are woodland and brush areas with high fire potential. VHFHSZs are discussed in greater detail in the Safety Element.

Disadvantaged Unincorporated Legacy Communities (SB 244)

SB244, which became effective in 2011, requires cities and counties to identify and study the infrastructure needs of disadvantaged unincorporated communities. The County used the following criteria to identify "disadvantaged unincorporated legacy communities" as required by state law:

- Parcels are at least 50 years old.
- Parcels are outside of a city's sphere of influence.
- Parcels are clustered with 10 or more units in close proximity.
- Households earn less than 80% of the state median income.

As shown in Figure 6.4, the majority of parcels identified for SB 244 are concentrated in the eastern portion of the Antelope Valley. The remaining parcels are located in the western portion of the Antelope Valley, Lopez Canyon, Kagel Canyon, Altadena, Hacienda Heights, and Rowland Heights.

Figure 6.4: Disadvantaged Unincorporated Communities (SB 244)

For a general assessment of structural fire protection for the unincorporated areas, please refer to the Fire Hazards section of the Safety Element. For information on water service and sanitary sewers, please refer to the Drinking Water and Sanitary Sewer sections of the Public Services and Facilities Element. For information on stormwater management, please refer to the Local Water Resources section of the Conservation and Natural Resources Element. The intent of the General Plan is to address the specific needs of the disadvantaged legacy communities through area planning efforts. Please refer to Program PS/F-1: Planning Area Capital Improvement Plans in Chapter 16: General Plan Implementation Programs.

III. Issues

1. Creating Opportunities for Infill Development

Infill development contributes to compact development, which consumes less land and resources. It can reduce the costs of providing public infrastructure and services. It is important to recognize the opportunities as well as challenges of infill development in the unincorporated areas.

Transit Oriented Development

Urban and suburban areas with access to major transit and commercial corridors have the most potential for infill development. Transit-oriented development is well-suited for higher density housing and mixed uses in urban and suburban areas, with nodes commercial, employment, and civic activities. Transit-oriented development in urban and suburban areas connects neighborhoods, and community and employment centers through a broad network of pedestrian, bicycle, transit, and roadway facilities.

Transit Oriented Districts (TODs)

Transit Oriented Districts (TODs) are areas within a 1/2 mile radius from a major transit stop that have development and design standards, and incentives to facilitate transit-oriented development. Figure 6.5 shows the location of the following 11 TODs:

- Aviation/LAX Station TOD (Metro Green Line)
- Hawthorne Station TOD (Metro Green Line)
- Vermont Station TOD (Metro Green Line)
- Rosa Parks Station TOD (Metro Green Line/Blue Line)
- Slauson Station TOD (Metro Blue Line)
- Florence Station TOD (Metro Blue Line)
- Firestone Station TOD (Metro Blue Line)
- Del Amo Station TOD (Metro Blue Line)
- Sierra Madre Villa Station TOD (Metro Gold Line)
- Third Street TOD Corridor (Metro Gold Line Eastside Extension)
- 110 Freeway/Carson Station TOD (connection to Metro Silver Line)

All TODs will be implemented by a TOD specific plan, or a similar mechanism, with standards, regulations, and infrastructure plans that tailor to the unique characteristics and needs of each community, and address access and connectivity, pedestrian improvements, and safety. For more information, please refer to Program LU-2 Transit Oriented District Program in Chapter 16 General Plan Implementation Programs.

The TOD plans will address existing challenges within many of the County's TODs. For example, many of the transit stations that serve the unincorporated areas are located in the middle of freeways, which limit access to the station, expose users to traffic and noise pollution, and create unsafe environments for pedestrians. Another challenge to implementing TODs is the existing development patterns around the transit stations. As many of the lots are small, developments will require lot consolidation and incentives to utilize higher densities.

Figure 6.5: Transit Oriented Districts Policy Map

Vacant and Underutilized Parcels

Infill potential in urbanized areas is measured by the availability of vacant and underutilized parcels. Many vacant or underutilized parcels in infill areas have site constraints and in some cases, do not meet current zoning regulations and development standards. For example, many infill parcels along major commercial corridors are shallow or narrow, and new parking, landscaping or drainage requirements may require more land area than physically or financially feasible. Regulatory incentives, such as lot consolidation provisions and parking reductions, are needed to encourage development on these sites.

Brownfields

Brownfield sites are former industrial or commercial sites that are abandoned or underutilized due to real or perceived environmental contamination from previous or current uses. Brownfield sites present infill development opportunities, as well as opportunities to clean up environmentally damaged sites.

The costs and liability associated with remediating brownfield sites, however, is a deterrent to redevelopment. The availability of technical assistance, financing and other programs is necessary to promote brownfields redevelopment.

Adaptive Reuse

Adaptive reuse can play a key role in revitalizing older, economically-distressed neighborhoods. Older and often historically significant buildings can be recycled and converted into other uses, such as multifamily residential developments, live and work units, mixed use developments, or commercial uses. However, preexisting conditions, such as building location, lack of onsite parking, footprint and size can add to the difficulty in meet current zoning regulations and development standards. Regulatory incentives, such as flexibility in zoning, are needed to encourage the adaptive reuse of older buildings.

2. The Impacts of Suburban Sprawl

Suburban sprawl is a land use pattern that extends urban infrastructure and residential development into undeveloped areas with limited or no infrastructure, such as roads, public utilities, and public transit. While well-designed development may occur in isolation, the impacts of suburban sprawl can be seen when there are no clear and defined growth boundaries and strong development restrictions, which results, over time, in the spread of the initial developed area into surrounding undeveloped areas. A suburban sprawl land use pattern puts the unincorporated areas at risk of losing resources, such as agricultural lands, and will contribute to the fragmentation and isolation of open space areas. Suburban sprawl also can potentially contribute to traffic congestion, air pollution, and greenhouse gas emissions.

3. Protecting Rural Communities

“Rural” is defined as a way of life characterized by living in a non-urban or agricultural environment at low densities without typical urban services. Urban services and facilities not normally found in rural areas, unless determined to be necessary for public safety, include curbs, gutters and sidewalks; street lighting, landscaping and traffic signalization; public solid waste disposal, integrated water and sewerage system; mass transit; and commercial facilities dependent upon large consumer volumes, such as regional shopping centers, sports stadiums and theaters.

4. Land Use Compatibility and Distribution

Land Use Compatibility

The placement, configuration, and distribution of land uses have a significant impact on a community's quality of life. For example, in some cases, a residential use could be impacted by noise, traffic and odor from adjacent commercial or heavy industrial uses. The General Plan addresses land use compatibility by mapping and regulating uses and intensities, and including policies and programs that mitigate land use conflicts through design, such as the use of landscaping, walls, building orientation, and performance standards. The General Plan also encourages developments that are compatible with community identity and character and existing conditions, such as rural and natural environmental settings.

The General Plan encourages the protection of major facilities, such as landfills, solid waste disposal sites, energy facilities, natural gas storage facilities, oil and gas production and processing facilities, military installations, and airports from the encroachment of incompatible uses. For example, the County's Airport Land Use Plan, which was adopted by the ALUC in 1991, addresses compatibility between airports and surrounding land uses by addressing noise, overflight, safety, and airspace protection concerns to minimize the public's exposure to excessive noise and safety hazards within Airport Influence Areas.

Planning for Various Needs through Land Use Planning

Land use planning can contribute to addressing community needs. For example, complementary land uses, such as local-serving grocery stores, parks and schools in residential neighborhoods, or community-serving uses near employment centers, can promote a balanced distribution of jobs, housing and services. The Housing Element identifies the need to plan for denser and more compact housing types are necessary in the unincorporated areas to accommodate the changing housing needs for populations, such as a growing senior citizen population, younger individuals living alone, low-income households, and others who need and/or desire apartments, condominiums, and smaller, more affordable housing units. There is also a need to plan for areas that accommodate job growth and support increased demand for goods and services. Furthermore, there is a need to plan for community-serving commercial uses.

Land use planning can also provide access to amenities that can lead to important health outcomes, such as reducing the occurrence of obesity and chronic diseases. In particular, access to food systems is critical for healthy, livable, and equitable communities. Ensuring that opportunities exist to grow, sell, and consume healthy foods promotes public health and supports efforts to reduce obesity rates.

Among community-serving uses, early care and education falls short of meeting demand. There is a need to ensure that all households have access to a sufficient supply of quality early care and education and supervised school-age enrichment options for children from birth to age 13. In conjunction with the goals, strategies and objectives of the County's Child Care Policy Framework and Child Care Planning Committee, the General Plan encourages and facilitates the development of early care and education in the unincorporated areas. For more information, please visit the CEO Office of Child Care web site at http://childcare.lacounty.gov.

5. Community Wellness

Community design and sustainable developments are two concepts that contribute to land use patterns and community infrastructure that promote health and wellness in communities.

Community Design

Community design relates to the physical character of a community, and the relationship between people and their environment. What constitutes "good" design is entirely dependent on the context and perspective of each individual community. Community design in rural areas in the Antelope Valley is different from community design in urbanized communities, such as East Los Angeles and Florence-Firestone.

Successful community design standards build upon the characteristics of both the natural and man-made environments that are unique to each community. Community design is more than a focus on the architectural style of a specific building or site. It involves groups of related elements and uses that when taken together, define a community. In some areas, community design considers the scale of new buildings relative to neighboring structures, the relationship of the street to the sidewalk, neighborhood gateways and streetscape improvements. Examples of community design elements include consistent landscaping for streets or uniform signage that designates a special district within a community in an urbanized setting; or large minimum lot sizes, standards to minimize the visual impact of man-made structures on the rural landscape, and design standards for equestrian trails in a rural setting.

The General Plan provides general community design policies that help create a "sense of place" and uniqueness within the diverse communities of the unincorporated areas.

The Role of the Arts

Artistic and cultural resources are important components of community design. Civic art, which improves the quality of the environment and fosters a positive community identity, can be used in conjunction with community design efforts to sustain and enhance community character and a sense of place. The arts can play a central role in comprehensive community revitalization efforts that include public safety, health, education, affordable housing, transportation, planning, and design.

The General Plan protects existing artistic and cultural assets, and promotes the creation of new art to enhance communities. The General Plan also includes implementation programs that promote creative place-making to enhance the physical and social character of healthy, livable communities.

Sustainable Developments

Below are techniques that could help achieve a range of sustainable development.

Energy Efficient Developments

Sustainable practices, such as optimizing the solar orientation of buildings to maximize passive and active solar design techniques, result in healthier and energy efficient environments. In addition, providing substantial tree canopy cover, and utilizing light colored paving materials and energy-efficient roofing materials, can reduce the urban heat island effect.

Sustainable Subdivision Design

<u>Energy Efficient Lot Design</u>

The size, shape and orientation of a lot are important considerations in achieving energy-efficient building designs. Energy-efficient lot design maximizes solar access during the cooler months, while minimizing solar access during the warmer months. The slope of the land also has implications for

lot design and energy-efficiency. Constructing roads to follow slope contours can reduce construction costs and minimize energy inputs to the development of the site.

Street Patterns, Public Transportation and Implications for Accessibility

An interconnected street pattern that minimizes cul-de-sacs and dead ends provides increased safety and a greater number of route options for pedestrians, bicyclists and motorists. Interconnected streets also provide direct access to schools and neighborhood shopping without cars. Interconnected streets disperse rather than concentrate vehicular traffic, decrease trip lengths for all road users, and improve local and regional accessibility.

IV. Land Use Legend

The General Plan Land Use Legend, Table 6.2, describes the designations that guide land use and development activities in the unincorporated areas. There are two exceptions to the applicability of the General Plan Land Use Legend. One exception is for land use legends in existing community-based plans, which differ from the General Plan Land Use Legend. As described in LU Policy 2.12,land use legends for existing community-based plans and existing specific plans will be updated using the General Plan Land Use Legend through a comprehensive area plan effort. Another exception is for coastal land use plans, which are subject to review by the California Coastal Commission, per the California Coastal Act, and may result in different land use designations than those described in the General Plan Land Use Legend.

The General Plan Land Use Legend provides general intended uses and development intensities for each land use designation. Land uses are not limited to the general intended uses listed under each designation; other uses that are allowed through zoning may be deemed compatible with the general intended uses. For specific use types, permitting procedures and development standards, please refer to the Zoning Code or the applicable specific plan. For an estimate of population and employment density for each land use designation, please refer to Appendix C.

Intensity Calculations

Allowable Residential Units Calculation

Residential density shall be calculated using the net area of the project site, unless the property is on land that is designated Rural Land. The net area excludes dedicated streets and private easements (e.g., access) where the owner of the underlying parcel does not have the right to use the entire surface. All proposed residential densities must fit within the range specified by the land use designation in the General Plan Land Use Legend.

For any Rural Land designation, the residential density shall be calculated using the gross area of the parcel(s). The gross area of a parcel includes dedicated streets and private easements.

Floor Area Ratio (FAR) Calculation

Floor Area Ratio (FAR) is the ratio of the total above-ground gross floor area of all enclosed buildings to the area of the project site. As a formula, FAR = (total above-ground gross floor area of all enclosed buildings)/ (area of the project site).

When specified, and under limited circumstances, the General Plan permits deviations to the Land Use Legend and Land Use Policy Map, such as an increase in density above the maximum

allowable density. These include the allowance of density bonuses for affordable and senior citizen housing, as well as other incentive-based local ordinances that implement the goals of the General Plan.

Table 6.2: Land Use Designations

Land Use	Code	Permitted Density or FAR	Purpose
RURAL			
Rural Land	RL1	Residential: Maximum 1 du/1 gross ac Non-Residential: Maximum FAR 0.5	Purpose: Single family residences; equestrian and limited animal uses; and limited agricultural and related activities.
	RL2	Residential: Maximum 1 du/2 gross ac Non-Residential: Maximum FAR 0.5	
	RL5	Residential: Maximum 1 du/5 gross ac Non-Residential: Maximum FAR 0.5	
	RL10	Residential: Maximum 1 du/10 gross ac Non-Residential: Maximum FAR 0.5	Purpose: Single family residences; equestrian and animal uses; and agricultural and related activities.
	RL20	Residential: Maximum 1 du/20 gross ac Non-Residential: Maximum FAR 0.5	
	RL40	Residential: Maximum 1 du/40 gross ac Non-Residential: Maximum FAR 0.5	

Land Use	Code	Permitted Density or FAR	Purpose
RESIDENTIAL			
Residential 2	H2	Residential: 0–2 du/net ac	Purpose: Single family residences.
Residential 5	H5	Residential: 0–5 du/net ac	
Residential 9	H9	Residential: 0–9 du/net ac	
Residential 18	H18	Residential: 0–18 du/net ac	Purpose: Single family residences, two family residences.
Residential 30	H30	Residential: 0–30 du/net ac	Purpose: Single family residences, two family residences, multifamily residences.
Residential 50	H50	Residential: 0–50 du/net ac	
Residential 100	H100	Residential: 50-100 du/net ac	Purpose: Multifamily residences.
Residential 150	H150	Residential: 100-150 du/net ac	

Land Use	Code	Permitted Density or FAR	Purpose
COMMERCIAL			
Rural Commercial	CR	Residential: 0-5 du/net ac Non-Residential: Maximum FAR 0.5	Purpose: Limited, low intensity commercial uses that are compatible with rural and agricultural activities, including retail, restaurants, and personal and professional services.
General Commercial	CG	Residential: 0-50 du/net ac Non-Residential: Maximum FAR 1.0 Mixed Use: 0-50 du/net ac and FAR 1.0	Purpose: Local-serving commercial uses, including retail, restaurants, and personal and professional services; single family and multifamily residences; and residential and commercial mixed uses.
Major Commercial	CM	Residential: 30-150 du/net ac Non-Residential: Maximum FAR 3.0 Mixed Use: 30-150 du/net ac and FAR 3.0	Purpose: Large and intense commercial uses, such as regional and destination shopping centers, tourist and recreation related commercial services; multifamily residences; and residential and commercial mixed uses.

Land Use	Code	Permitted Density or FAR	Purpose
MIXED USE			
Mixed Use	MU	Residential: 0-150 du/net ac Non-Residential: Maximum FAR 3.0 Mixed Use: 0-150 du/net ac and FAR 3.0	Purpose: Pedestrian-friendly and community-serving commercial uses that encourage walking, bicycling, and transit use; residential and commercial mixed uses; and multifamily residences.
Mixed Use – Rural	MU-R	Residential: 0-5 du/net ac Non-Residential: Maximum FAR 0.5 Mixed Use: 0-5 du/net ac and FAR 0.5	Purpose: Limited, low intensity commercial uses that are compatible with rural and agricultural activities, including retail, restaurants, and personal and professional services; residential and commercial mixed uses.

Land Use	Code	Permitted Density or FAR	Purpose
INDUSTRIAL			
Light Industrial	IL	Non-Residential: Maximum FAR 1.0	Purpose: Light industrial uses, including light manufacturing, assembly, warehousing and distribution.
Heavy Industrial	IH	Non-Residential: Maximum FAR 1.0	Purpose: Heavy industrial uses, including heavy manufacturing, refineries, and other labor and capital intensive industrial activities.
Industrial Office	IO	Non-Residential: Maximum FAR 2.0	Purpose: Employment centers with major office and business uses, such as technology and research centers, corporate headquarters, clean tech, and clean industry hubs.

Land Use	Code	Permitted Density or FAR	Purpose
PUBLIC AND SEMI-PUBLIC			
Public and Semi-Public	P	Residential: Density Varies* Non-Residential: Maximum FAR 3.0	Purpose: Public and semi-public facilities and community-serving uses, including public buildings and campuses, schools, hospitals, cemeteries, and fairgrounds; airports and other major transportation facilities. Other major public facilities, including planned facilities that may be public-serving but may not be publicly accessible, such as landfills, solid and liquid waste disposal sites, multiple use storm water treatment facilities, and major utilities. *In the event that the public or semi-public use of mapped facilities is terminated, alternative uses that are compatible with the surrounding development, in keeping with community character, are permitted.
NATURAL RESOURCES			
Conservation	OS-C	N/A	Purpose: The preservation of open space areas and scenic resource preservation in perpetuity. Applies to land that is legally dedicated for open space and conservation efforts.
Parks and Recreation	OS-PR	N/A	Purpose: Open space recreational uses, such as regional and local parks, trails, athletic fields, community gardens, and golf courses.
National Forest	OS-NF	N/A	Purpose: Areas within the national forest and managed by the National Forest Service.
Bureau of Land Management	OS-BLM	N/A	Purpose: Areas that are managed by the Federal Bureau of Land Management.
Water	W	N/A	Purpose: Bodies of water, such as lakes, reservoirs, natural waterways, and man-made infrastructure, such as drainage channels, floodways, and spillways. Includes active trail networks within or along drainage channels.
Mineral Resources	MR	N/A	Purpose: Areas appropriate for mineral extraction and processing as well as activities related to the drilling for and production of oil and gas.
Military Land	ML	N/A	Purpose: Military installations and land controlled by U.S. Department of Defense.

Land Use	Code	Permitted Density or FAR	Purpose
OVERLAYS			
Transit Oriented District	TOD	Determined by the station area plan for each TOD	Purpose: Pedestrian-friendly and community-serving uses near transit stops that encourage walking, bicycling, and transit use.
Special Management Areas	SMA	N/A	Purpose: Special Management Areas require additional development regulations due to the presence of natural resources, scenic resources, or identified hazards. Development regulations are necessary to prevent loss of life and property, and to protect the natural environment. Special Management Areas include: Significant Ecological Areas; National Forests; Coastal Zone; Agricultural Resource Areas; Mineral Resource Zones; Scenic Resources; Historic, Cultural and Paleontological Resources; Seismic Hazard Zones; Flood Hazard Zones; Very High Fire Hazard Severity Zones; and Airport Influence Areas.
Specific Plan	SP	N/A	Purpose: Specific plans contain precise guidance for land development, infrastructure, amenities and resource conservation. Specific plans must be consistent with the General Plan. Detailed policy and/or regulatory requirements are contained within each specific plan document.
Employment Protection District	EPD	N/A	Purpose: Economically viable industrial and employment-rich lands with policies to protect these areas from conversion to non-industrial uses.

V. Goals and Policies

Goal LU 1: A General Plan that serves as the constitution for development, and a Land Use Policy Map that implements the General Plan's Goals, Policies and Guiding Principles.	
Topic	**Policy**
General Plan Amendments	Policy LU 1.1: Support comprehensive updates to the General Plan, area plans, community plans, coastal land use plans and specific plans.
	Policy LU 1.2: Discourage project-specific amendments to the text of the General Plan, including but not limited to the Guiding Principles, Goals, and Policies.
	Policy LU 1.3: In the review of project-specific amendments to the General Plan, ensure that they support the Guiding Principles.
	Policy LU 1.4: In the review of a project-specific amendment(s) to the General Plan, ensure that the project-specific amendment(s): • Is consistent with the goals and policies of the General Plan; • Shall benefit the public interest and is necessary to realize an unmet local or regional need.
	Policy LU 1.5: In the review of a project-specific amendment(s) to convert OS-C designated lands to other land use designations, ensure that the project-specific amendment(s) does not contribute to the overall loss of open space that protects water quality, provides natural habitats, and contributes to improved air quality.
	Policy LU 1.6: In the review of a project-specific amendment(s) to convert lands within the EPD Overlay to non-industrial land use designations, ensure that the project-specific amendment(s): • Is located on a parcel that adjoins a parcel with a comparable use, at a comparable scale and intensity; • Will not negatively impact the productivity of neighboring industrial activities; • Is necessary to promote the economic value and the long-term viability of the site; and • Will not subject future residents to potential noxious impacts, such as noise, odors or dust or pose significant health and safety risks.
	Policy LU 1.7: In the review of a project-specific amendment(s) to convert lands within the ARAs, ensure that the project-specific amendment(s): • Is located on a parcel that adjoins another parcel with a comparable use, at a comparable scale and intensity; and • Will not negatively impact the productivity of neighboring agricultural activities.
	Policy LU 1.8: Limit the amendment of each mandatory element of the General Plan to four times per calendar year, unless otherwise specified in Section 65358 of the California Government Code.

	Policy LU 1.9: Allow adjustments to the General Plan Land Use Policy Map to follow an adjusted Highway Plan alignment without a General Plan amendment, when the following findings can be met: • The adjustment is necessitated by an adjusted Highway Plan alignment that was approved by the Los Angeles County Interdepartmental Engineering Committee (IEC) in a duly noticed public meeting; • The adjustment maintains the basic relationship between land use types; and • The adjustment is consistent with the General Plan.
Specific Plans	Policy LU 1.10: Require the intensity, density, and uses allowed in a new specific plan to be determined using the General Plan, including the Land Use Policy Map and Land Use Legend.
	Policy LU 1.11: Require a General Plan amendment for any deviation from the intensities, densities, and uses allowed by the General Plan (to apply the appropriate designation from the General Plan Land Use Legend), unless allowances for flexibility are specified in the specific plan.
	Policy LU 1.12: Require development regulations and zoning for new specific plans to be consistent with their corresponding General Plan land use designation.
	Policy LU 1.13: Allow specific plans to include implementation procedures for flexibility, such as development phasing, and redistribution of intensities and uses, as appropriate.
	Policy LU 1.14: Require a specific plan amendment for any deviation from the procedures and policies established by a specific plan.
	Policy LU 1.15: For existing specific plans, which are depicted with an “SP” land use designation, the General Plan Land Use Policy Map shall be amended as part of a comprehensive area planning effort, to identify existing specific plans using the Specific Plan Overlay.
Goal LU 2: Community-based planning efforts that implement the General Plan and incorporate public input, and regional and community level collaboration.	
Topic	**Policy**
Regional and Community-Based Planning Initiatives	Policy LU 2.1: Ensure that all community-based plans are consistent with the General Plan.
	Policy LU 2.2: Ensure broad outreach, public participation, and opportunities for community input in community-based planning efforts.
	Policy LU 2.3: Consult with and ensure that applicable County departments, adjacent cities and other stakeholders are involved in community-based planning efforts.
	Policy LU 2.4: Coordinate with other local jurisdictions to develop compatible land uses.
	Policy LU 2.5: Support and actively participate in inter-jurisdictional and regional planning efforts to help inform community-based planning efforts.
	Policy LU 2.6: Consider the role of arts and culture in community-based planning efforts to celebrate and enhance community character.

	Policy LU 2.7: Set priorities for Planning Area-specific issues, including transportation, housing, open space, and public safety as part of community-based planning efforts.
	Policy LU 2.8: Coordinate with the Los Angeles County Department of Public Works and other infrastructure providers to analyze and assess infrastructure improvements that are necessary for plan implementation.
	Policy LU 2.9: Utilize the General Plan Land Use Legend and the Hazard, Environmental and Resource Constraints Model to inform the development of land use policy maps.
	Policy LU 2.10: Ensure consistency between land use policy and zoning by undergoing a comprehensive zoning consistency analysis that includes zoning map changes and Zoning Code amendments, as needed.
	Policy LU 2.11: Update community-based plans on a regular basis.
	Policy LU 2.12: Community-based plans and existing specific plans shall be updated, as needed, to reflect the General Plan Land Use Legend as part of a comprehensive area planning effort. An exception to this is for coastal land use plans, which are subject to the California Coastal Act and to review by the California Coastal Commission.
Goal LU 3: A development pattern that discourages sprawl, and protects and conserves areas with natural resources and SEAs.	
Topic	**Policy**
Growth Management	Policy LU 3.1: Encourage the protection and conservation of areas with natural resources, and SEAs.
	Policy LU 3.2: Discourage development in areas with high environmental resources and/or severe safety hazards.
	Policy LU 3.3: Discourage development in undeveloped areas where infrastructure and public services do not exist, or where no major infrastructure projects are planned, such as state and/or federal highways.
Goal LU 4: Infill development and redevelopment that strengthens and enhances communities.	
Topic	**Policy**
Infill Development	Policy LU 4.1: Encourage infill development in urban and suburban areas on vacant, underutilized, and/or brownfield sites.
	Policy LU 4.2: Encourage the adaptive reuse of underutilized structures and the revitalization of older, economically distressed neighborhoods.
	Policy LU 4.3: Encourage transit-oriented development in urban and suburban areas with the appropriate residential density along transit corridors and within station areas.
	Policy LU 4.4: Encourage mixed use development along major commercial corridors in urban and suburban areas.

Goal LU 5: Vibrant, livable and healthy communities with a mix of land uses, services and amenities.	
Topic	**Policy**
Community-Serving Uses	Policy LU 5.1: Encourage a mix of residential land use designations and development regulations that accommodate various densities, building types and styles.
	Policy LU 5.2: Encourage a diversity of commercial and retail services, and public facilities at various scales to meet regional and local needs.
	Policy LU 5.3: Support a mix of land uses that promote bicycling and walking, and reduce VMTs.
	Policy LU 5.4: Encourage community-serving uses, such as early care and education facilities, grocery stores, farmers markets, restaurants, and banks to locate near employment centers.
	Policy LU 5.5: Ensure that all households have access to a sufficient supply of quality early care and education and supervised school-age enrichment options for children from birth to age 13.
	Policy LU 5.6: Reduce regulatory and other barriers to early care and education facilities.
	Policy LU 5.7: Direct resources to areas that lack amenities, such as transit, clean air, grocery stores, bikeways, parks, and other components of a healthy community.
	Policy LU 5.8: Encourage farmers markets, community gardens, and proximity toother local food sources that provide access to healthful and nutritious foods.
Employment Generating Uses	Policy LU 5.9: Preserve key industrially designated land for intensive, employment-based uses.
	Policy LU 5.10: Encourage employment opportunities and housing to be developed in proximity to one another.
Goal LU 6: Protected rural communities characterized by living in a non-urban or agricultural environment at low densities without typical urban services.	
Topic	**Policy**
Rural Character	Policy LU 6.1: Protect rural communities from the encroachment of incompatible development that conflict with existing land use patterns and service standards.
	Policy LU 6.2: Encourage land uses and developments that are compatible with the natural environment and landscape.
	Policy LU 6.3: Encourage low density and low intensity development in rural areas that is compatible with rural community character, preserves open space, and conserves agricultural land.
Goal LU 7: Compatible land uses that complement neighborhood character and the natural environment.	
Topic	**Policy**

Land Use Compatibility	Policy LU 7.1: Reduce and mitigate the impacts of incompatible land uses, where feasible, using buffers and other design techniques.
	Policy LU 7.2: Protect industrial parks and districts from incompatible uses.
	Policy LU 7.3: Protect public and semi-public facilities, including but not limited to major landfills, natural gas storage facilities, and solid waste disposal sites from incompatible uses.
	Policy LU 7.4: Ensure land use compatibility in areas adjacent to military installations and where military operations, testing, and training activities occur.
	Policy LU 7.5: Ensure land use compatibility in areas adjacent to mineral resources where mineral extraction and production, as well as activities related to the drilling for and production of oil and gas, may occur.
	Policy LU 7.6: Ensure that proposed land uses located within Airport Influence Areas are compatible with airport operations through compliance with airport land use compatibility plans.
	Policy LU 7.7: Review all proposed projects located within Airport Influence Areas for consistency with policies of the applicable airport land use compatibility plan.
Goal LU 8: Land uses that are compatible with military operations and military readiness, and enhance safety for military personnel and persons on the ground.	
Topic	**Policy**
Military Compatible Uses	Policy LU 8.1: Facilitate the early exchange of project-related information that is pertinent to military operations with the military for proposed actions within MOAs, HRAIZs, and within 1,000 ft. of a military installation.
	Policy LU 8.2: Evaluate the potential impact of new structures within MOAs and HRAIZs to ensure the safety of the residents on the ground and continued viability of military operations. In the review of development within MOAs and HRAIZs, consider the following: • Uses that produce electromagnetic and frequency spectrum interference, which could impact military operations; • Uses that release into the air any substance such as steam, dust and smoke, which impair pilot visibility; • Uses that produce light emissions, glare or distracting lights, which could interfere with pilot vision or be mistaken for airfield lighting; and • Uses that physically obstruct any portion of the MOA and/or HRAIZ due to relative height above ground level.
Goal LU 9: Land use patterns and community infrastructure that promote health and wellness.	
Topic	**Policy**
Community	Policy LU 9.1: Promote community health for all neighborhoods.

Wellness	Policy LU 9.2: Encourage patterns of development that promote physical activity.
	Policy LU 9.3: Encourage patterns of development that increase convenient, safe access to healthy foods, especially fresh produce, in all neighborhoods.
Goal LU 10: Well-designed and healthy places that support a diversity of built environments.	
Topic	**Policy**
Community Design	Policy LU 10.1: Encourage community outreach and stakeholder agency input early and often in the design of projects.
	Policy LU 10.2: Design development adjacent to natural features in a sensitive manner to complement the natural environment.
	Policy LU 10.3: Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.
	Policy LU 10.4: Promote environmentally-sensitive and sustainable design.
	Policy LU 10.5: Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction.
	Policy LU 10.6: Encourage pedestrian activity through the following: • Designing the main entrance of buildings to front the street; • Incorporating landscaping features; • Limiting masonry walls and parking lots along commercial corridors and other public spaces; • Incorporating street furniture, signage, and public events and activities; and • Using wayfinding strategies to highlight community points of interest.
	Policy LU 10.7: Promote public spaces, such as plazas that enhance the pedestrian environment, and, where appropriate, continuity along commercial corridors with active transportation activities.
	Policy LU 10.8: Promote public art and cultural amenities that support community values and enhance community context.
	Policy LU 10.9: Encourage land uses and design that stimulate positive and productive human relations and foster the achievement of community goals.
	Policy LU 10.10: Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.
	Policy LU 10.11: Facilitate the use of streets as public space for activities that promote civic engagement, such as farmers markets, parades, etc.

	Policy LU 10.12: Discourage gated entry subdivisions (“gated communities”) to improve neighborhood access and circulation, improve emergency access, and encourage social cohesion.
	Policy LU 10.13: Discourage flag lot subdivisions unless designed to be compatible with the existing neighborhood character.
Goal LU 11: Development that utilize sustainable design techniques.	
Topic	**Policy**
Energy Efficient Development	Policy LU 11.1: Encourage new development to employ sustainable energy practices, such as utilizing passive solar techniques and/or active solar technologies.
	Policy LU 11.2: Support the design of developments that provide substantial tree canopy cover, and utilize light-colored paving materials and energy-efficient roofing materials to reduce the urban heat island effect.
	Policy LU 11.3: Encourage development to optimize the solar orientation of buildings to maximize passive and active solar design techniques.
Sustainable Subdivisions	Policy LU 11.4: Encourage subdivisions to utilize sustainable design practices, such as maximizing energy efficiency through lot configuration; preventing habitat fragmentation; promoting stormwater retention; promoting the localized production of energy; promoting water conservation and reuse; maximizing interconnectivity; and utilizing public transit.
	Policy LU 11.5: Prohibit the use of private yards as required open space within subdivisions, unless such area includes active recreation or outdoor activity areas dedicated for common and/or public use.
	Policy LU 11.6: Ensure that subdivisions in VHFHSZs site open space to minimize fire risks, as feasible.
	Policy LU 11.7: Encourage the use of design techniques to conserve natural resource areas.
	Policy LU 11.8: Encourage sustainable subdivisions that meet green neighborhood standards, such as Leadership in Energy and Environmental Design–Neighborhood Development (LEED-ND).

VI. Land Use Element Implementation Programs

- Planning Areas Framework Program
- TOD Program
- Airport Land Use Compatibility Plans
- Growth Management Program
- Civic Art Program

- Transfer of Development Rights Program
- Adaptive Reuse Ordinance
- Art and Cultural Resources Program
- Community Design Guidelines
- Early Care and Education Program
- Military Operation Areas Overlay Ordinance

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Boxes]

Jobs-Housing Balance

Jobs-housing balance is reached by working toward increasing opportunities for people to work and live in close proximity, and reduce long commutes that are costly both economically and environmentally. This can be quantified by taking the number of jobs divided by the number of housing units. A community with fewer jobs than residences would have a low jobs-housing ratio. Communities with a high jobs-housing ratio are usually considered major employment centers for a region. If the ratio is high or low, there is a jobs-housing imbalance.

Brownfields

Data on the number of brownfield sites in unincorporated areas of the County is provided by the California Department of Toxic Substances Control (DTSC) EnviroStor public web site, which provides access to detailed information on hazardous waste permitted and corrective action facilities, as well as existing site cleanup information. For further information on particular brownfield sites, please visit the DTSC web site at http://www.dtsc.ca.gov/.

Soul of the Community 2010

What makes a community a desirable place to live? What makes people stay and build a future in a community?

In 2008, Gallup and the John S. and James L. Knight Foundation set out to answer these questions through the Soul of the Community project. After interviewing around 43,000 people in 26 communities, the study concluded that the main factors that attached people to place include: an area's physical beauty, opportunities for socializing, and a community's openness to all people.

Source: Knight Soul of the Community 2010, Why People Love Where They Live and Why It Matters: A National Perspective. http://www.soulofthecommunity.org/

Airport Land Use Commission (ALUC)

The State law requires each county with public use airports to establish an Airport Land Use Commission (ALUC). The ALUC is mandated to fulfill two specific duties:

- To prepare airport land use plans for promoting and ensuring compatibility between each airport in a county and its surrounding and adjacent land uses; and

- To review local agency land use actions and airport plans for consistency with the airport land use plan and policies.

SCAG's Compass Blueprint Growth Vision

The Land Use Element goals and policies are consistent with the SCAG's Compass Blueprint Growth Vision, which contains a set of land use strategies that SCAG encourages local governments to implement:

- Focusing growth in existing and emerging centers and along major transportation corridors.
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities.
- Providing new housing opportunities that respond to the region's changing demographics.
- Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations.
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings, and building new businesses and housing on vacant lots.
- Preserving existing, stable, single family neighborhoods.
- Protecting important open space, environmentally sensitive areas and agricultural lands from development.

Chapter 7: Mobility Element

I. Introduction

The California Complete Streets Act of 2008 requires the General Plan to demonstrate how the County will provide for the routine accommodation of all users of a road or street, including pedestrians, bicyclists, users of public transit, motorists, children, seniors, and the disabled. The Mobility Element addresses this requirement with policies and programs that consider all modes of travel, with the goal of making streets safer, accessible and more convenient to walk, ride a bicycle, or take transit.

The Mobility Element provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The Element assesses the challenges and constraints of the Los Angeles County transportation system, and offers policy guidance to reach the County's long-term mobility goals. Two sub-elements—the Highway Plan and Bicycle Master Plan—supplement the Mobility Element. These plans establish policies for the roadway and bikeway systems in the unincorporated areas, which are coordinated with the networks in the 88 cities in Los Angeles County. The General Plan also establishes a program to prepare community pedestrian plans, with guidelines and standards to promote walkability and connectivity throughout the unincorporated areas.

II. Background

Los Angeles County has one of the largest transportation systems in the world. Despite continuing efforts to increase transportation services and build transportation infrastructure, transportation systems are heavily burdened by the demands of a growing population and a diversity of activities. Transportation is also one of the biggest contributors of noise, and greenhouse gases and other air pollutants.

Regulatory Framework

Local agencies responsible for transportation services in Los Angeles County coordinate their activities to comply with the goals and policies of Southern California Association of Governments (SCAG) and Los Angeles County Metropolitan Transportation Authority (Metro). SCAG is the federally designated regional transportation planning agency responsible for preparing the Regional Transportation Plan (RTP) and the Sustainable Communities Strategy (SCS). Metro is the county-level transportation planning agency responsible for the preparation of the Long Range Transportation Plan (LRTP). The County, the 88 cities in Los Angeles County, and other transportation agencies engage in transportation planning activities by participating in the development and implementation of the RTP and LRTP.

The County participates in establishing policies, promoting specific projects, and funding the strategies in the RTP and the LRTP. Each Los Angeles County Supervisor is a member of the Metro Board of Directors, and two members of the Board of Supervisors serve on SCAG's Regional Council, and on the Southern California Regional Rail Authority (Metrolink) Board of Directors.

Metro is also the Congestion Management Agency for Los Angeles County and is responsible for implementing the Congestion Management Program (CMP). Metro is currently exploring the development of a countywide congestion mitigation fee program to improve transportation roadways

including state facilities. This program, adopted locally by individual jurisdictions, would impose a fee on new development that would be collected and spent locally on transportation projects that would help to ease regional congestion. For more information, please visit Metro's web site at http://www.metro.net/projects/congestion_mgmt_pgm/.

Transportation Systems in Los Angeles County

Public Transit

Los Angeles County is served by a large public transit system that includes rail systems and various bus service options, such as transitways and bus rapid transit systems. Figure 7.1 depicts the major public transit systems in Los Angeles County.

Figure 7.1: Major Public Transit Systems Map

Rail

Metro operates the Metro rail system, which is exclusively within Los Angeles County. The Metro rail system consists of the following lines: Red, Purple, Blue, Green, Gold and Expo. The hub of the system is in Downtown Los Angeles at Union Station. The Metro lines that primarily serve the unincorporated areas include the Metro Blue, Green and Gold Lines. The Metro Blue Line stations that serve the unincorporated areas include: Slauson, Florence, Firestone, Willowbrook and Del Amo. The Aviation/LAX, Vermont, Hawthorne, and Rosa Parks stations along the Metro Green Line also serve the unincorporated areas. The Gold Line has five stations that serve the unincorporated areas: Indiana, Maravilla, East LA Civic Center, Atlantic and Sierra Madre Villa.

Two additional rail service operators that provide services in Los Angeles County are Metrolink and Amtrak. The Southern California Regional Rail Authority (SCRRA) operates the 416-mile Metrolink commuter rail system, which has its hub in Downtown Los Angeles at Union Station and extends to Ventura, San Bernardino, Riverside, Orange, and San Diego counties, and serves some of the unincorporated areas. There is one Metrolink station located in the unincorporated community of Acton, on the Antelope Valley Line. Amtrak provides interstate service from points around the country to Union Station, as well as regional service between major cities throughout California.

Bus

With many regional and municipal operators providing bus services, buses provide the majority of public transit service in Los Angeles County. Examples of these operators include Torrance Transit, Foothill Transit, Santa Clarita Transit, and the Antelope Valley Transit Authority. According to Metro's 2009 Long Range Transportation Plan, the transit providers in Los Angeles County collectively operate 4,000 buses and serve 1.6 million bus riders daily.

The Metro bus system is the largest in Los Angeles County. Metro operates the Metro Rapid Bus service, which runs on select surface street corridors with fewer stops and electronic signal switching devices to expedite traffic flow, and the Metro Express Bus service, which are express bus routes for a portion of the route and then local or limited routes in other areas. Metro also operates two bus rapid transitways: the Orange Line and Silver Line. The Metro Orange Line operates on a dedicated bus lane in the San Fernando Valley and also includes a separated bike path that runs along part of the route. The Metro Silver Line operates between Downtown Los Angeles and the Artesia Transit Center.

Furthermore, the Los Angeles County Department of Public Works (DPW) operates fixed route shuttle services in the following unincorporated areas: Willowbrook and King Medical Center Shuttle services in Willowbrook; Athens Shuttle service in West Athens-Westmont; Lennox Shuttle service in Lennox; Florence-Firestone/Walnut Park Shuttle service in Florence-Firestone and Walnut Park; El Sol Shuttle service in East Los Angeles; Sunshine Shuttle service in South Whittier; Avocado Heights/Bassett/West Valinda Shuttle service in Avocado Heights, Bassett and West Valinda; East Valinda Shuttle service in East Valinda; Edmund D. Edelman's Children's Court Shuttle service in East Los Angeles; Los Nietos Shuttle service in Los Nietos; and Acton/Agua Dulce Shuttle service in Acton and Agua Dulce. For detailed information on these shuttle services, please visit http://www.lagobus.info. For data on monthly average boardings for the County shuttles, please refer to Appendix D.

Paratransit

Paratransit is an alternative mode of flexible transportation that does not follow fixed routes or schedules. Demand-responsive paratransit contractors are used to meet the needs of seniors and mobility-impaired individuals living in the unincorporated areas.

The Whittier paratransit service operating in the unincorporated communities of North Whittier, West Whittier–Los Nietos and South Whittier–Sunshine Acres has, on average, the highest number of monthly boardings at 3,207. Unincorporated East Los Angeles has the second highest demand with 2,049 boardings on average per month. For detailed information on the County's paratransit services, please visit http://www.lagobus.info. For additional data on average monthly boardings, please refer to Appendix D.

Bikeways

The State Vehicle Code allows roadways to be used by bicyclists. Therefore, the entirety of surfaced roadways, excluding freeways, may be used by the bicycling public even though they are not all identified as bikeways. However, the lack of public awareness and the safety concerns associated with road sharing create a need for bikeways with a grade separation, lane delineation, or designated trail/path construction for bicycle users.

Bicycle Master Plan

The Los Angeles County Bicycle Master Plan, adopted in March 2012, provides policy guidance for building a comprehensive bicycle network throughout the unincorporated areas. The Bicycle Master Plan identifies bikeways and transportation systems that are available for use by bicyclists, such as roadways with bike lanes or designated bike routes, and dedicated off-road bike paths, such as bike paths along the flood protection channels. The purpose of the Bicycle Master Plan is to: 1) guide the development of infrastructure, policies and programs that improve the bicycling environment; 2) depict the general location of planned bikeway routes; and 3) provide for a system of bikeways that is consistent with the General Plan.

The Bicycle Master Plan maps depict bikeways along roadways in the unincorporated areas and along rivers, creeks, and flood protection facilities countywide. These bikeways may be used for both recreational use and commuter travel.

The Bicycle Master Plan also includes data on collisions involving bicyclists and motor vehicles in the unincorporated areas between the years 2004 and 2009. In total, there were 1,369 collisions, including 25 fatalities. One of the goals of the Bicycle Master Plan is to reduce the number of collisions by making bicycling more safe through the implementation of education programs and

network improvements. For more detailed data on collisions in the unincorporated areas, please refer to Appendix D. To view the Bicycle Master Plan, including policies, programs, and the mapped bicycle network, please visit DPW's Bicycle Master Plan web site at http://dpw.lacounty.gov/go/bikeplan.

Pedestrian Networks

The diversity of communities in Los Angeles County creates distinct conditions, opportunities and challenges for pedestrians. There are a number of trails and paths that are available for use by pedestrians, such as sidewalks, hiking trails, over and under passes, and skywalks. Together, these systems constitute a network for accommodating pedestrian travel.

Community Pedestrian Plans

The County is committed to improving the environment to allow for increased alternative transportation uses. The General Plan includes a program to prepare community pedestrian plans for the unincorporated areas that will set standards for sidewalks, street crossings, sidewalk continuity, street connectivity, and topography. The community pedestrian plans will emphasize the connectivity of pedestrian paths to and from public transportation, major employment centers, shopping centers, and government buildings.

For more information on community pedestrian plans, please refer to Program M-2, Community Pedestrian Plans in Chapter 16: General Plan Implementation Programs.

Freeway, Highway, and Local Road Networks

The highway network is comprised of the State Highway System, which consists of 915 freeway and highway miles, and includes U.S. Interstate freeways and state-maintained freeways and highways, High Occupancy Vehicle (HOV) lanes, and county and city highways. The California Department of Transportation (Caltrans) is the state agency responsible for the maintenance of freeways and highways. Caltrans estimates that on average there are more than 100 million vehicle miles traveled per day in Los Angeles County via the State Highway System. Figure 7.2 is a map of State Highways and Freeways System that serves Los Angeles County.

Figure 7.2: Highways and Freeways Map

The County is responsible for the design, construction, operation, maintenance, and repair of roads in the unincorporated areas, as well as in a number of local jurisdictions that contract with the County for these services. DPW maintains over 3,100 miles of major roads and local streets in the unincorporated areas and over 1,700 miles in 22 cities.

Highway Plan

The Los Angeles County Highway Plan provides policy guidance for building a comprehensive highway network throughout the unincorporated areas. The Highway Plan provides a highway system that is consistent with and supportive of the goals and policies outlined in the Land Use Element. More specifically, the Highway Plan maintains right-of-way corridors to ensure space for future facility improvements to accommodate alternative modes. This is important in urbanized areas, which often have limited room for expansion, but are in need of additional facilities and improvements, such as bike lanes, sidewalks, and bus service. This is also important in rural areas

to accommodate trails and landscaping, which encourage active transportation, provide shade, and reduce runoff from pollutants.

The purpose of the Highway Plan is to: 1) depict the general location of planned highway routes; 2) provide a means for protecting highway rights-of-way within the unincorporated areas; 3) establish a plan and process for coordinating highway policies with neighboring cities and counties; and 4) provide for a system of highways that is consistent with the General Plan.

The Los Angeles County Interdepartmental Engineering Committee (IEC), which is comprised of the Director of Planning, the Road Commissioner, and the County Engineer, is charged with maintaining the Highway Plan.

Figure 7.3 shows the Highway Plan, which includes locations of existing and proposed major arterial highways. Although the County has no jurisdiction over roads in the 88 cities, or the freeways and other state routes maintained by Caltrans, these roadways are included in the map for reference and visual continuity. The Highway Plan roadway classifications and descriptions are provided in Table 7.1.

Figure 7.3: Highway Plan Policy Map

Table 7.1: Highway Plan Roadway Classifications

Classification	Description
Major Highway	This classification includes urban and rural highways that are of countywide significance and are, or are projected to be, the most highly traveled routes. These roads generally require four or more lanes of moving traffic, channelized medians and, to the extent possible, access control and limits on intersecting streets. In urban areas, the typical right-of-way width for these highways is 100 feet. Alternative major highway sections may be established by the County to accommodate features such as raised medians, bicycle facilities, and wider parkways with varying right-of-way widths. In rural areas, major highways are intended to maintain a rural appearance (without curb, gutter, and/or sidewalk) to reflect the rural character of various communities throughout Los Angeles County. The typical right-of-way width of a rural major highway is 108 feet. Additional right-of-way may be required to accommodate other transportation uses. In addition, beyond the ultimate road right-of-way, there may be a need for additional dedications for trail purposes, to accommodate equestrian and other non-vehicular uses.
Secondary Highway	This classification includes urban and rural routes that serve or are planned to serve an areawide or countywide function, but are less heavily traveled than major highways. Secondary highways also frequently act as oversized collector roads that feed the countywide system. In this capacity, the routes serve to remove heavy traffic from local streets, especially in residential areas. Access control, especially to residential property and minor streets, is desirable along these roads. In urban areas, secondary highways generally have four lanes of vehicular traffic on 80 feet of right-of-way. However, configuration and width may vary with traffic demand and existing conditions. In a few cases, routes that carry major highway levels of traffic are classified as secondary highways because it is impractical to widen them to major highway standards. Alternative secondary highway sections

	may be established by the County to accommodate features such as raised medians, bicycle facilities, and wider parkways with varying right-of-way widths. In rural areas, certain connector highways to and between rural communities are also classified as secondary highways. These highways are intended to maintain a rural appearance (without curb, gutter, and/or sidewalk) to reflect the rural character of various communities throughout Los Angeles County. The typical right-of-way width of rural secondary highways is 86 feet. Additional right-of-way may be required to accommodate other transportation uses. In addition, beyond the ultimate road right-of-way, there may be a need for additional dedications for trail purposes, to accommodate equestrian and other non-vehicular uses.
Limited Secondary Highway	This classification includes urban and rural routes that provide access to low-density areas. In urban areas, limited secondary highways generally feature lower traffic volumes and multimodal transportation facilities. The typical right-of-way width of these highways generally ranges between 64-80 feet. Alternative secondary highway sections may be established by the County to accommodate features such as raised medians, bicycle facilities, and wider parkways with varying right-of-way widths. In rural areas, limited secondary highways are generally located in rural communities and remote foothill, mountain and canyon areas. These highways are intended to maintain a rural appearance (without curb, gutter, and/or sidewalk) to reflect the rural character of various communities throughout Los Angeles County. The typical right-of-way width of rural limited secondary highways is 64 feet. Additional right-of-way width may be required to accommodate left-turn pockets and passing lanes may be provided when required for traffic safety. The right-of-way may be increased for additional improvements where traffic or drainage conditions warrant. In addition, beyond the ultimate road right-of-way, there may be a need for additional dedications for trail purposes, to accommodate equestrian and other non-vehicular uses.
Parkway	This classification includes urban and rural routes that have park-like features either within or adjacent to the roadway. The right-of-way width required varies as necessary to incorporate these features, typically with a minimum of 80 feet. Roadway improvements vary depending on the composition and volume of traffic carried.
Expressway	This classification includes urban and rural controlled-access highways connecting communities. Expressways can generally accommodate six to ten traffic lanes and are intended for thru-traffic, featuring full or partial control of access. The right-of-way required varies as necessary to incorporate these features, but is typically 180 feet in width. Roadway improvements vary depending upon the composition and volume of traffic carried.

Level of Service

DPW uses level of service (LOS) to assess the congestion of roadways in the transportation system. Based on a roadway's volume-to-capacity ratio (the number of vehicles currently using the roadway compared to the ideal maximum number of vehicles that can efficiently use the roadway), a letter designation is assigned that represents the traffic flow conditions, or LOS. Letter designations "A" through "F" represent progressively declining traffic flow conditions. LOS designations indicate whether the roadways are operating in excess of their intended capacity. Acceptable LOS is determined on a case by case basis, but generally, Level D is the desired minimum LOS. In some instances, LOS below D will be deemed acceptable in order to further other General Plan goals and

policies, such as those that protect environmentally sensitive areas, promote active transportation, and encourage infill development, particularly within the Transit Oriented Districts. For the freeway system, DPW will work closely with Caltrans to identify potential significant traffic impacts and traffic mitigations to alleviate traffic congestion within the unincorporated areas.

Table 7.2 provides the definitions for LOS A-F, which are based on the definitions in the Transportation Research Board's Highway Capacity Manual.

LOS	Type of Flow	Description
A	Free flow	Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.
B	Stable flow	The ability to maneuver within the traffic stream is only slightly restricted and control delay at intersections is no significant. The travel speed is between 67% and 85% of the base free-flow speed.
C	Stable flow	The ability to maneuver and change lanes at midsegment locations may be more restricted than at LOS B. Longer queues at intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.
D	Approaching unstable flow	Small increases in flow may cause substantial increases in delay and decreases in travel speed. The travel speed is between 40% and 50% of the base free-flow speed.
E	Unstable flow	Significant delay is commonly experienced. The travel speed is between 30% and 40% of the base free-flow speed.
F	Forced flow	Congestion is likely occurring at intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed.

Although DPW utilizes the above described LOS criteria for assessing the performance of, and determining impacts to, roadways, DPW is currently working on the development of a multimodal transportation planning function. This effort will ensure that transportation facilities are planned, designed, and maintained to provide safe and efficient mobility for all users. Please refer to Program M-4, Multimodal Transportation Planning Function in Chapter 16: General Plan Implementation Program, for more details.

Aviation Network

There are 15 public-use airports located in Los Angeles County and one military airport located on San Clemente Island, as shown in Figure 7.4. The majority of passenger air transportation is serviced through Los Angeles International Airport (LAX), Burbank Airport, and the Long Beach Airport. Table 7.3 is a list of the airports and owners.

Figure 7.4: Airports/Airfields Map

Table 7.3: Los Angeles County Airports/Airfields

Airport/Airfield	Location	Owner
Agua Dulce Airport	Agua Dulce	Private
Burbank (Bob Hope) Airport	City of Burbank	Airport Authority
Brackett Field Airport	City of La Verne	Los Angeles County
Catalina Island Airport	Santa Catalina Island	Private
Compton/Woodley Airport	City of Compton	Los Angeles County
El Monte Airport	City of El Monte	Los Angeles County
Frederick Sherman Field	San Clemente Island	U.S. Navy
General William J. Fox Airfield	City of Lancaster	Los Angeles County
Jack Northrop Field Airport (Hawthorne Municipal Airport)	City of Hawthorne	City of Hawthorne
Long Beach Municipal Airport (Daugherty Field Airport)	City of Long Beach	City of Long Beach
Los Angeles International Airport (LAX)	City of Los Angeles	City of Los Angeles (LAWA)
Santa Monica Municipal Airport	City of Santa Monica	City of Santa Monica
Palmdale Regional Airport	City of Palmdale	City of Los Angeles (LAWA)
Van Nuys Airport	City of Los Angeles, Van Nuys	City of Los Angeles (LAWA)
Whiteman Airport	City of Los Angeles, Pacoima	Los Angeles County
Torrance Municipal Airport-Zamperini Field	City of Torrance	City of Torrance

Freight Rail Network

Los Angeles County has an extensive rail network that is focused on the efficient and safe movement of goods throughout the region. An effective goods movement system requires the elimination of at-grade crossings, and the creation and operation of rail networks, such as the Alameda Corridor.

The Alameda Corridor is a 20-mile rail cargo corridor, with a 10-mile below-grade trench between the ports of Los Angeles and Long Beach and the central Los Angeles freight yard transfer stations. The Alameda Corridor has been instrumental in efficiently transporting goods from the ports to inland transfer stations. The Alameda Corridor East Project, which is an extension of the Alameda Corridor

Project, covers the area from central Los Angeles eastward 35 miles through the San Gabriel Valley, past Pomona and onward to the transcontinental rail network. The $910 million endeavor of mobility and safety improvements includes signalization upgrades, roadway widening, and 20 grade separations.

Figure 7.5 shows the freight and passenger rail lines that run throughout Los Angeles County.

Figure 7.5: Freight and Passenger Rail Lines Map

Interstate, Highways, and Local Roads

The six-county SCAG region has about 53,400 road miles traversing incorporated and unincorporated areas, 1,630 miles of which are interstate and freeway type. Sections of Interstate-710, Interstate-605, State Route-60, and State Route-91 carry the highest volumes of truck traffic in the region, averaging over 25,000 trucks per day in 2008. Other major components of the regional highway network also serve significant numbers of trucks, including Interstate-5, Interstate-10, Interstate-15, and Interstate-210, with some sections carrying over 20,000 trucks per day. These roads carry a mix of local, domestic trade, and international cargoes. The arterial roadway system also plays a critical role, providing “last mile” connections to the ports, manufacturing facilities, intermodal terminals, warehouses, and distribution centers.

Supportive Facilities

Harbors

The ports of Los Angeles and Long Beach are key links in the global economy and can handle a variety of cargo, including containers, bulk products, and automobiles. Combined, they are one of the largest and most efficient international shipping ports in the country, and the fifth busiest container port in the world. According to SCAG, the ports handled just under 120 million metric tons of cargo imports and exports, valued at $336 billion in 2010. The ports also serve as a significant tourism driver, as the largest cruise ship terminal on the West Coast, serving over a million passengers per year.

Parking

A limited number of public parking lots are maintained in the unincorporated areas by a variety of agencies, including Caltrans, Metro, the Los Angeles County Departments of Beaches and Harbors, and DPW. Metrolink and Caltrans maintain park-and-ride lots adjacent to commuter rail stops. The County owns and operates the following four park-and-ride lots: Studio City (Ventura Boulevard); Pomona (Fairplex); San Dimas (Via Verde); and Acton (Acton/Vincent Grade Metrolink Station).

The County regulates on-street parking in certain high-traffic areas through restricted parking zones enforced by the Sheriff’s Department and California Highway Patrol. In addition, the Los Angeles County Department of Regional Planning regulates parking for new developments by requiring an adequate number of spaces to meet anticipated demand.

Terminals

Terminal facilities provide multiple uses, from park-and-ride lots for daily commuter vehicles to the heavily used freight terminals that serve the ports. Fierce competition among West Coast cities for international trade business has led to the planning and construction of an efficient terminal network. The most notable terminal facilities are the intermodal terminal networks located in and around the

ports of Los Angeles and Long Beach, the goods transfer stations located near Downtown Los Angeles, and several freight and trucking facilities in the City of Industry.

III. Issues

1. Providing Streets That Accommodate All Users

Historically, transportation planning and street design have focused on the efficient movement of automobiles and not on the travel needs of pedestrians, equestrians, and bicyclists. In order to create more welcoming places to walk, ride and bicycle, as well as to take transit, more emphasis needs to be placed on these other viable modes of transportation. Furthermore, transportation corridor designs should accommodate all users, including children, seniors, and the disabled.

Aesthetics and function are also important considerations when creating comfortable places to walk, bicycle, and take transit. This can include landscaping, street furniture, and amenities, such as benches and shelters at transit stops.

In a jurisdiction as diverse as the unincorporated areas, the approach to complete streets must be flexible and street designs must be context-sensitive. For example, complete streets in rural areas, such as the Antelope Valley, could look and feel very different from complete streets in urban communities, such as Willowbrook and Florence-Firestone.

2. Creating a Multimodal Transportation System

Single occupant vehicle use is associated with the highest level of land consumption among all transportation modes, and generates the highest level of environmental impacts. Estimates from the American Community Survey suggest that 74 percent of residents in the unincorporated areas drive alone to work, compared with 13 percent that carpool and 6 percent that use public transportation. The percentages for walking and bicycling are even lower, at less than 2 percent each. To encourage alternative modes and discourage single occupant vehicle use, the County can facilitate an interconnected, multimodal network of streets, equestrian trails, alleys, paths, greenways, and waterways where people can choose to walk, bicycle, ride, take transit or drive. The key to achieving a functional and sustainable multimodal transportation system is to provide efficient connections between different modes. For example, bicyclists can conveniently travel to farther destinations if they have the option to board the transit system with their bicycles. Multimodal options, such as bicycling and walking are cost-effective, energy efficient and healthy alternatives to driving. Additionally, creating bike-friendly and walkable communities is a critical component in meeting the County's greenhouse gas emission and energy reduction goals, while enhancing vibrant, livable communities.

Mobility management is an important component of a multimodal transportation system. Highway congestion results in major social costs, and long travel times and congestion increase energy and oil usage, exacerbate automobile emissions, and diminish the region's quality of life. In addition, long delays and congestion negatively impact the region's economy. According to SCAG, by failing to address congestion in the region, jobs have been lost–-every 10 percent decrease in congestion can bring an employment increase of about 132,000 jobs.

Mobility management is an important strategy for improving congestion and reducing VMTs. Mobility management strategies are designed to be used alone, or in concert with other policies to have a cumulative effect on the efficiency of the transportation system. Such strategies include the use of technologies in the development of transportation facilities and infrastructure, such as liquid and

compressed natural gas, and hydrogen gas stations, Intelligent Transportation Systems (ITS), and electric car plug-in ports. Mobility management also refers to transportation demand management (TDM), which includes strategies that change travel behavior and discourage the single occupant driver, such as offering employer-based transit passes or increasing transit availability; regional carpooling programs; and parking management. One of the most effective TDM strategies is arguably congestion pricing.

Achieving a multimodal transportation system will require a greater investment in transit, pedestrian, and bicycle infrastructure. New proposals, such as tolling major freeways, double-decking highways, and/or raising the gas tax, all have varying levels of political and popular support. However, paying for transportation infrastructure will remain a critical planning issue. To plan efficient, functional and cost-effective transportation networks, including public transit, roadways, and alternative transportation, the County should leverage investment with the planning, financing and management of other jurisdictions' transportation efforts. The County must work with transportation planning agencies on infrastructure, capital improvements and programming in areas where the General Plan focuses growth.

3. Connecting Transportation and Land Use Planning

For any transportation system to be effective, healthy and sustainable, all aspects–streets, freeways, public transit, highways, sidewalks, bicycle facilities, and freight movement–must be coordinated with land use planning. Land use and mobility are inherently linked. For example, sprawling single use development encourages driving. In another example, denser, communities with a mix of land uses that encourage transit use, walking, and bicycling are healthier and sustainable.

Land use planning and urban design are important factors in developing transit use and multimodal transportation options. Historically, streets have been designed to move the maximum amount of automobile traffic. Congested roadways and high on-street parking demand create insufficient space to accommodate bike lanes. In addition, a frequent complaint of bicyclists is the absence of adequate facilities to secure bicycles at public and private buildings or facilities. Many of the commercial corridors in mature urbanized areas are underutilized and in need of redevelopment. Strengthening mixed land uses and promoting compact development in these areas, in concert with design standards for rights-of-way, can help encourage walking and bicycling for shorter trips, as well as make transit more accessible. This is certainly true in the first-last mile connection to transit, which is the portion of a transit trip between a transit stop and one's final destination. At its April 2014 meeting, the Metro Board approved the First Last Mile Strategic Plan and Planning Guidelines, which aims to "better coordinate infrastructure investments in station areas to extend the reach of transit, with the ultimate goal of increasing ridership." The First Last Mile Strategic Plan details an extensive toolbox of pedestrian and cycling facilities that would make it safer and more convenient for riders to walk and bike to and from a transit stop. The strategies and tools identified in this Strategic Plan should be considered and utilized by the County, when feasible, during future planning efforts within the Transit Oriented Districts. The First Last Mile Strategic Plan is available online at: http://media.metro.net/docs/sustainability_path_design_guidelines.pdf. Finally, an important consideration in rural areas is to ensure that land uses account for equestrian uses, including the development of feeder trails and regional trails, to address equestrian mobility issues.

Because of the nature and financing of regional transportation networks, transportation planning is fragmented among many jurisdictions, agencies and County departments. Effective inter-jurisdictional collaboration, and public-private partnerships are essential to creating an efficient and multimodal transportation network.

4.Safe and Efficient Movement of Goods

The safe and efficient movement of goods is an important mobility issue that significantly impacts the economy. Goods movement has been negatively impacted by inefficient transportation networks. The ports, airports, rail lines and intermodal transit terminals have existing capacity constraints that undermine the efficiency and productivity of the goods movement system. In addition, the existing roadway and rail networks are reaching capacity. As a result, the system is susceptible to disruptions, which causes delays that reduce the quality of services and increase costs to consumers. Furthermore, the roadways and rail networks that accommodate the movement of goods are shared by motorists and passengers, which raises additional concerns over efficiency and safety.

The ports of Long Beach and Los Angeles are heavily investing in infrastructure to handle a projected doubling of container volumes. However, the ports have also been identified as one of the largest sources of air pollution in the region. In addition, terminal operations and supporting infrastructure are consumptive land uses, and are often characterized as having heavily polluting activities. The ports have created a Clean Air Action Plan in conjunction with the U.S. Environmental Protection Agency, the California Air Resources Board, and the South Coast Air Quality Management District to reduce emissions related to port operations.

The 2012–2035 RTP/SCS describes a goods movement system with initiatives and projects totaling nearly $50 billion through 2035 for SCAG's six-county region, including Los Angeles County. Key regional initiatives include a comprehensive system of zero- and/or near-zero-emission freight corridors, alleviation of major bottlenecks, a rail package totaling approximately $12 billion, and an environmental strategy to address emissions through both near term initiatives and a long term action plan for technology advancement. The comprehensive system of zero- and/or near-zero-emission freight corridors includes Interstate-710. The rail package includes main line capacity enhancements, on-dock and near-dock rail facility improvements, and 71 grade separations. In addition, critical projects to facilitate access to the ports (e.g., improvements to the Gerald Desmond Bridge), and to alleviate congestion at critical border crossings, are underway.

Regional Clean Freight Corridor System

In past RTPs, SCAG has envisioned a system of truck-only lanes extending from the ports to Downtown Los Angeles along Interstate-710, connecting to an east-west segment, and finally reaching Interstate-15 in San Bernardino County. Such a system would address the growing truck traffic on core highways throughout the region and serve key goods movement industries in a manner that mitigates impacts on communities and the environment.

East-West Freight Corridor

The 2012–2035 RTP/SCS identifies a corridor concept that connects to the north end of the I-710 freight corridor and roughly parallel the Union Pacific Railroad Los Angeles Subdivision before finally following a route adjacent to SR-60 just east of SR-57. The potential use of two non-roadway routes provides an opportunity to move the facility away from neighborhoods and closer to the industrial activities that it would serve. Utilizing a right-of-way of approximately 100 feet, the bi-directional corridor would be restricted to truck traffic and have limited ingress/egress points. The East-West Freight Corridor would be a catalyst for the use of zero-and/or near-emission truck technologies, improving air quality for communities near the corridor and throughout the region.

Bottleneck Relief

The 2012 RTP/SCS allocates an estimated $5 billion toward goods movement bottleneck relief strategies. Examples of bottleneck relief strategies include ramp metering, extension of merging lanes, ramp and interchange improvements, capacity improvements, and auxiliary lane additions. Additional project concepts will continue to be refined through SCAG's Comprehensive Regional Goods Movement Plan and Implementation Strategy.

Truck Corridors and Localized Arterials

While SCAG's effort is regional in scope, Metro is working to identify a County-Wide Strategic Truck Arterial Network (CSTAN) for Los Angeles County. The CSTAN will be informed by collection of data including truck counts on arterials, existing truck routes, connectivity to goods movement facilities, the location of bottlenecks, identification of land uses along truck routes and where they overlap with active transportation areas. The information is expected to guide funding priorities for projects such as roadway widening, road repair and intersection improvements while minimizing potential conflicts between trucks and active transportation facilities.

While truck route studies have been performed at the council of government level, Metro is coordinating a countywide effort in recognition that truck routes frequently traverse subregions. As a key stakeholder and steward of public rights-of-way in the unincorporated areas, DPW serves as a technical advisor to the CSTAN program.

Air Travel and Cargo

SCAG expects air travel in the region to continue to grow. LAX, for instance, is the sixth busiest airport in the world and third busiest in the United States, offering more than 565 daily flights to 81 domestic cities and more than 1,000 weekly nonstop flights to 66 international destinations on more than 75 air carriers. It ranks 13th in the world in the amount of air cargo tonnage handled. In 2010, LAX served more than 59 million passengers, processed more than 1.9 million tons of air cargo valued at nearly $84 billion, and handled 575,835 aircraft operations (landings and takeoffs).

A $4.11 billion capital improvement program is underway at LAX, generating nearly 40,000 local jobs. The program's centerpiece is the $1.5-billion Bradley West Project with new gates for the latest-generation aircraft; new concourses and seating areas; new retail and food and beverage offerings; and expanded areas for more efficient security screening, immigration and customs processing. There also are several major airfield and facility projects, including a new Central Utility Plant, new taxiways and taxi lanes, and multi-million-dollar renovations--undertaken by both Los Angeles World Airports (LAWA) and the airlines--to other terminals.

5. Impacts of Transportation on Natural and Community Resources

Transportation systems, goods movement activities, and automobile use directly affect quality of life. This includes traffic congestion, truck intrusion into neighborhoods, safety, land use incompatibility, poor air quality and related health impacts, restricted mobility and delay at rail crossings, noise and vibration impacts, and visual impacts. Significant short- and long-term air quality impacts directly result from goods movement activities, such as emissions from ocean ships, diesel trucks, as well as increased auto-emissions, which in turn contributes to climate change.

The expansion and operation of transportation systems, which invariably affect biological resources and water quality, can be mitigated to lessen the negative impacts on resources. One key ecological issue is the effect of increased runoff from paved surfaces, which increases sediment movement,

destroys aquatic habitat, and redistributes road-source pollutants. A second crucial ecological issue is potential negative impacts of human transportation systems on biological resources. Human transit is often responsible for transporting non-native species to ecosystems that do not have any natural defenses against the new threats. At the same time, transit infrastructure creates physical barriers across wildlife habitats and corridors that can reduce the mobility of local species, contribute toward mortality, and threaten genetic diversity. As discussed in the Public Services and Facilities Element, the majority of stormwater runoff is discharged directly into the Pacific Ocean. The General Plan provides policies that support transportation systems that treat and infiltrate stormwater runoff to mitigate the environmental impacts of the runoff.

IV. Goals and Policies

Goal M 1: Street designs that incorporate the needs of all users.	
Topic	**Policy**
Complete Streets	Policy M 1.1: Provide for the accommodation of all users, including pedestrians, motorists, bicyclists, equestrians, users of public transit, seniors, children, and persons with disabilities when requiring or planning for new, or retrofitting existing, transportation corridors/networks whenever appropriate and feasible.
	Policy M 1.2: Ensure that streets are safe for sensitive users, such as seniors and children.
	Policy M 1.3: Utilize industry standard rating systems to assess sustainability and effectiveness of street systems for all users.
Goal M 2: Interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use.	
Topic	**Policy**
Active Transportation Design	Policy M 2.1: Provide transportation corridors/networks that accommodate pedestrians, equestrians and bicyclists, and reduce motor vehicle accidents through a context-sensitive process that addresses the unique characteristics of urban, suburban, and rural communities whenever appropriate and feasible.
	Policy M 2.2: Accommodate pedestrians and bicyclists, and reduce motor vehicle accidents by implementing the following street designs, whenever appropriate and feasible: • Lane width reductions to 10 or 11 feet in low speed environments with a low volume of heavy vehicles. • Wider lanes may still be required for lanes adjacent to the curb, and where buses and trucks are expected. • Low-speed designs. • Access management practices developed through a community-driven process. • Back in angle parking at locations that have available roadway width and bike lanes, where appropriate.

	Policy M 2.3: Accommodate pedestrians and bicyclists, and reduce motor vehicle accidents by implementing the following intersection designs, whenever appropriate and feasible: • Right angle intersections that reduce intersection skew. • Smaller corner radii to reduce crossing distances and slow turning vehicles. • Traffic calming measures, such as bulb-outs, sharrows, medians, roundabouts, and narrowing or reducing the number of lanes (road diets) on streets. • Crossings at all legs of an intersection. • Shorter crossing distances for pedestrians. • Right-turn channelization islands. Sharper angles of slip lanes may also be utilized. • Signal progression at speeds that support the target speed of the corridor. • Pedestrian push buttons when pedestrian signals are not automatically recalled. • Walk interval on recall for short crossings. • Left-turn phasing. • Prohibit right turn on red. • Signs to remind drivers to yield to pedestrians.

	Policy M 2.4: Ensure a comfortable walking environment for pedestrians by implementing the following, whenever appropriate and feasible: • Designs that limit dead-end streets and dead-end sidewalks. • Adequate lighting on pedestrian paths, particularly around building entrances and exits, and transit stops. • Designs for curb ramps, which are pedestrian friendly and compliant with the American Disability Act (ADA). • Perpendicular curb ramps at locations where it is feasible. • Pedestrian walking speed based on the latest standard for signal timing. Slower speeds should be used when appropriate (i.e., near senior housing, rehabilitation centers, etc.) • Approved devices to extend the pedestrian clearance times at signalized intersections. • Accessible Pedestrian Signals (APS) at signalized intersections. • Pedestrian crossings at signalized intersections without double or triple left or right turn lanes. • Pedestrian signal heads, countdown pedestrian heads, pedestrian phasing and leading pedestrian intervals at signalized intersections. • Exclusive pedestrian phases (pedestrian scrambles) where turning volume conflicts with very high pedestrian volumes. • Advance stop lines at signalized intersections. • Pedestrian Hybrid Beacons. • Medians or crossing islands to divide long crossings. • High visibility crosswalks. • Pedestrian signage. • Advanced yield lines for uncontrolled crosswalks. • Rectangular Rapid Flashing Beacon or other similar approved technology at locations of high pedestrian traffic. • Safe and convenient crossing locations at transit stations and transit stops located at safe intersections.

	Policy M 2.5: Ensure a comfortable bicycling environment by implementing the following, whenever appropriate and feasible: • Bicycle signal heads at intersections. • Bicycle signal detection at all signalized intersections. • Wayfinding signage. • Road diet techniques, such as lane narrowing, lane removal, and parking removal/restriction. • Appropriate lighting on all bikeways, including those in rural areas. • Designs, or other similar features, such as: shoulder bikeways, cycle tracks, contra flow bike lanes, shared use paths, buffered bike lanes, raised bike lanes, and bicycle boulevards.
	Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible.
	Policy M 2.7: Require sidewalks, trails and bikeways to accommodate the existing and projected volume of pedestrian, equestrian and bicycle activity, considering both the paved width and the unobstructed width available for walking.
	Policy M 2.8: Connect trails and pedestrian and bicycle paths to schools, public transportation, major employment centers, shopping centers, government buildings, residential neighborhoods, and other destinations.
	Policy M 2.9: Encourage the planting of trees along streets and other forms of landscaping to enliven streetscapes by blending natural features with built features.
	Policy M 2.10: Encourage the provision of amenities, such as benches, shelters, secure bicycle storage, and street furniture, and comfortable, safe waiting areas near transit stops.
	Policy M 2.11: In urban and suburban areas, promote the continuity of streets and sidewalks through design features, such as limiting mid-block curb cuts, encouraging access through side streets or alleys, and promoting shorter block lengths.
Goal M 3: Streets that incorporate innovative designs.	
Topic	**Policy**
Innovative Street Design	Policy M 3.1: Facilitate safe roadway designs that protect users, preserve state and federal funding, and provide reasonable protection from liability.
	Policy M 3.2: Consider innovative designs when part of an accepted standard, or when properly vetted through an appropriate engineering/design review, in compliance with all state and federal laws.

	Policy M 3.3: Complete the following studies prior to the implementation of innovative design concepts: • An analysis of the current and future context of the community and neighborhood in which they are proposed; • A balanced assessment of the needs of all users and travel modes (i.e., pedestrian, bicycle, transit, vehicular, and equestrian, where appropriate); • A technical assessment of the operational and safety characteristics for each mode; and • A consistency check with transportation network plans, including the Highway Plan, Bicycle Master Plan, and Community Pedestrian Plans.
	Policy M 3.4: Support legislation that minimizes or eliminates liability associated with the implementation of innovative street designs that accommodate all users.
Goal M 4: An efficient multimodal transportation system that serves the needs of all residents.	
Topic	**Policy**
Transit Efficiency, Multimodal Transportation	Policy M 4.1: Expand transportation options that reduce automobile dependence.
	Policy M 4.2: Expand shuttle services to connect major transit centers to community points of interest.
	Policy M 4.3: Maintain transit services within the unincorporated areas that are affordable, timely, cost-effective, and responsive to growth patterns and community input.
	Policy M 4.4: Ensure expanded mobility and increase transit access for underserved transit users, such as seniors, students, low income households, and persons with disabilities.
	Policy M 4.5: Encourage continuous, direct routes through a connected system of streets, with small blocks and minimal dead ends (cul-de-sacs), as feasible.
	Policy M 4.6: Support alternatives to LOS standards that account for a multimodal transportation system.
	Policy M 4.7: Maintain a minimum LOS D, where feasible; however, allow LOS below D on a case by case basis in order to further other General Plan goals and policies, such as those related to environmental protection, infill development, and active transportation.
	Policy M 4.8: Provide and maintain appropriate signage for streets, roads and transit.
	Policy M 4.9: Ensure the participation of all potentially affected communities in the transportation planning and decision-making process.
	Policy M 4.10: Support the linkage of regional and community-level transportation systems, including multimodal networks.
	Policy M 4.11: Improve the efficiency of the public transportation system with bus lanes, signal prioritization, and connections to the larger regional transportation network.

	Policy M 4.12: Work with adjacent jurisdictions to ensure connectivity and the creation of an integrated regional network.
	Policy M 4.13: Coordinate with adjacent jurisdictions in the review of land development projects near jurisdictional borders to ensure appropriate roadway transitions and multimodal connectivity.
	Policy M 4.14: Coordinate with Caltrans on mobility and land use decisions that may affect state transportation facilities.
Travel Demand Management	Policy M 4.15: Reduce vehicle trips through the use of mobility management practices, such as the reduction of parking requirements, employer/institution based transit passes, regional carpooling programs, and telecommuting.
	Policy M 4.16: Promote mobility management practices, including incentives to change transit behavior and using technologies, to reduce VMTs.
Goal M 5: Land use planning and transportation management that facilitates the use of transit.	
Topic	**Policy**
Land Use and Transportation	Policy M 5.1: Facilitate transit-oriented land uses and pedestrian-oriented design, particularly in the first-last mile connections to transit, to encourage transit ridership.
	Policy M 5.2: Implement parking strategies that facilitate transit use and reduce automobile dependence.
	Policy M 5.3: Maintain transportation right-of-way corridors for future transportation uses, including bikeways, or new passenger rail or bus services.
Transportation Funding	Policy M 5.4: Support and pursue funding for the construction, maintenance and improvement of roadway, public transit, and equestrian, pedestrian and bicycle transportation systems.
	Policy M 5.5: Encourage financing programs, such as congestion pricing, bonding, increasing parking costs, fair share programs for each community, to implement local and state transportation systems and facilities.
Goal M 6: The safe and efficient movement of goods.	
Topic	**Policy**
Goods Movement	Policy M 6.1: Maximize aviation and port system efficiencies for the movement of people, goods and services.
	Policy M 6.2: Support the modernization of aviation systems, including LAX.
	Policy M 6.3: Designate official truck routes to minimize the impacts of truck traffic on residential neighborhoods and other sensitive land uses.
	Policy M 6.4: Minimize noise and other impacts of goods movement, truck traffic, deliveries, and staging in residential and mixed-use neighborhoods.

	Policy M 6.5: Support infrastructure improvements and the use of emerging technologies that facilitate the clearance, timely movement, and security of trade.
	Policy M 6.6: Preserve property for planned roadway and railroad rights-of-way, marine and air terminals, and other needed transportation facilities.
Goal M 7: Transportation networks that minimizes negative impacts to the environment and communities.	
Topic	**Policy**
Environmentally Sensitive Transportation Design	Policy M 7.1: Minimize roadway runoff through the use of permeable surface materials, and other low impact designs, wherever feasible.
	Policy M 7.2: Encourage the creation of wildlife underpasses and overpasses, fencing, signage, and other measures to minimize impacts to wildlife at junctures where transit infrastructure passes through or across sensitive habitats.
	Policy M 7.3: Encourage the use of sustainable transportation facilities and infrastructure technologies, such as liquid and compressed natural gas, and hydrogen gas stations, ITS, and electric car plug-in ports.
	Policy M 7.4: Where the creation of new or the retrofit of roadways or other transportation systems is necessary in areas with sensitive habitats, particularly SEAs, use best practice design to encourage species passage and minimize genetic diversity losses.
Rural Streets	Policy M 7.5: In rural areas, require rural highway and street standards that minimize the width of paving and the placement of curbs, gutters, sidewalks, street lighting, and traffic signals, except where necessary for public safety.

V. Mobility Element Implementation Programs

- Parking Ordinance
- Community Pedestrian Plans
- Safe Routes to School Program
- Multimodal Transportation Planning Function

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Boxes]

Model Design Manual for Living Streets

The Model Design Manual for Living Streets is a valuable resource for local jurisdictions looking to create streets that

are safe and comfortable for all users and all modes. It outlines various design features that not only accommodate cars, but also pedestrians, bicyclists, and transit riders. Street design features that help to create vibrant and attractive streets are also outlined in the manual.

The manual was funded by the Department of Health and Human Services through the Los Angeles County Department of Public Health and the UCLA Luskin Center for Innovation.

For more information please visit: http://www.modelstreetdesignmanual.com/

Green Streets

Green streets is a sustainable stormwater management and landscaping strategy that utilizes a combination of increased permeable surfaces and planted areas, soil filtration, vegetative bio-retention and underground stormwater retention basins to maximize groundwater recharge. Green streets not only improve water quality and drainage, but also improve mobility and promote complete streets through traffic calming. They also enhance the pedestrian experience through sustainable landscaping, such as bio-swales, street trees, rain gardens, and planters.

Chapter 8: Air Quality Element

I. Introduction

The South Coast Air Basin, which includes the majority of Los Angeles County, continues to have among the worst air quality ratings in the country. Additionally, climate change, which is primarily caused by an increase in greenhouse gas (GHG) emissions, is one of the most pressing environmental issues faced by all levels of government. Air pollution and climate change pose serious threats to the environment, economy, and public health.

The Air Quality Element summarizes air quality issues and outlines the goals and policies in the General Plan that will improve air quality and reduce greenhouse gas emissions. One sub element—the Community Climate Action Plan—supplements the Air Quality Element. This plan establishes actions for reaching the County's goals to reduce greenhouse gas emissions in the unincorporated areas.

II. Background

Air Pollutants

The air quality in Southern California does not meet state and federal standards. The American Lung Association consistently gives Los Angeles County failing grades in the amount of ozone and particulate pollution in the air. Although smog levels are impacted by seasons and weather patterns, smog is visible in the air on most days.

Los Angeles County is a large basin with the Pacific Ocean to the west, and several mountain ranges with 11,000 foot peaks to the east and south. Frequent sunny days and low rainfall contribute to ozone formation, as well as high levels of fine particles and dust. In addition, Los Angeles County is home to many diverse industries and the largest goods movement hub on the West Coast. In spite of emission controls that are among the most stringent in the country, power generation and petroleum refining continue to be among the largest stationary sources of air pollution in Los Angeles County.

Poor air quality is a measurable environmental hazard that impacts public health, welfare and the economy. The California Air Resources Board (CARB) has identified diesel particulate matter (PM) as representing 70 percent of the known cancer risk from air toxics in California. Diesel PM is primarily emitted from trucks, trains and ships, which puts those who live near ports and distribution centers at greater risk. A 2008 report by the Institute of Economic and Environmental Studies at California State University Fullerton found that California loses about $28 billion annually due to premature deaths and illnesses linked to ozone and particulates from sources in the South Coast and San Joaquin air basins. Most of those costs, about $25 billion, are connected to roughly 3,000 smog-related deaths in the State each year. Additional impacts include work and school absences, emergency room visits, asthma attacks and other respiratory illnesses.

Poor air quality in the region is attributed to emissions from human activities and natural sources, as well as geography, local weather and climate. Specific contributors to poor air quality include: natural factors, such as changes in the sun's intensity or slow changes in the Earth's orbit around the sun; natural processes within the climate system (e.g., changes in ocean circulation); human activities that change the atmosphere's composition (e.g., through the burning of fossil fuels); and human

activities that change the land surface (e.g., deforestation, reforestation, urbanization, desertification, etc.).

Federal, state and regional agencies regulate air pollutants and contaminants that harm human health. Regulations can include standard-setting, ambient monitoring, developing permitting programs, enforcement activities, and establishing economic incentives to reduce air pollution. As shown in Figure 8.1, Los Angeles County is divided into air basins, which are areas with similar meteorological and geographic conditions. The majority of Los Angeles County is in the South Coast Air Basin, with the area north of the San Gabriel Mountains located in the Mojave Desert Air Basin.

Figure 8.1: Air Basins Map

Criteria Air Pollutants

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set national ambient air quality standards for six common air pollutants. These pollutants are called criteria air pollutants because the U.S. EPA has developed human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels:

- Ozone (O_3)
- Particulate matter (PM)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO_2)
- Sulfur dioxide (SO_2)
- Lead (Pb)

Of the six identified criteria air pollutants, particle pollution and ground-level ozone have the most widespread health impacts. The levels of ozone, particulate matter, and carbon monoxide in Los Angeles County continually exceed federal and state ambient air quality standards. Table 8.1 is a summary of the primary sources and effects of the federally-identified criteria air pollutants.

Table 8.1: Primary Sources and Effects of Criteria Pollutants

Pollutants	Source	Los Angeles County Classification	Primary Health Effects
Ozone (O_3)	Atmospheric reaction of organic gases with nitrogen oxides in sunlight (“smog”)	Extreme Non-Attainment Area	Aggravation of respiratory and cardiovascular diseases; reduced lung function; increased cough and chest discomfort
Fine Particulate Matter (PM10 and PM 2.5)	Stationary combustion of fuels; construction activities; industrial processes; atmospheric chemical reactions	Serious Non-Attainment Area	Reduced lung function; aggravation of respiratory and cardio-respiratory diseases; increased mortality rate; reduced lung function growth in children.

Carbon Monoxide (CO)	Incomplete combustion of fuels, such as motor vehicle exhaust	Serious Non-Attainment Area	Aggravation of some heart diseases.
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust; high temperature stationary combustion; atmospheric reactions	*Concentrations have not exceeded federal standards since 1991, but emissions remain a concern because of their contribution to O_3 and PM	Aggravation of respiratory diseases.
Sulfur Dioxide (SO_2)	Combustion of sulfur containing fossil fuels; smelting of sulfur bearing metal ores; industrial processes	Attainment Area	Aggravation of respiratory diseases (eg., asthma, emphysema); reduced lung function.
Lead (Pb)	Contaminated soil	Attainment Area	Behavioral and hearing disabilities in children; nervous system impairment.

Source: South Coast Air Quality Management District, 2005.

Air Quality Management Plans

The long-term trend of air quality in Southern California shows continuous improvement since the 1970s, as a direct result of a comprehensive, multi-year strategy of reducing air pollution from all sources as outlined in air quality management plans (AQMPs). To ensure continued progress toward clean air, the SCAQMD in conjunction with the CARB, SCAG, and the U.S. EPA, prepared the 2012 AQMP that employs the latest science and analytical tools, and incorporates a comprehensive strategy to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act. The AQMP is updated every three years. For more information, please visit http://aqmd.gov/aqmp.

Toxic Air Contaminants

Many toxic air contaminants (TACs), such as formaldehyde and methanol, do not have federal or state ambient air quality standards. However, exposure to TACs is associated with elevated risk of cancer, birth defects, genetic damage, and other adverse health effects.

TACs are regulated by technology-based requirements that are enforced at the state and local level. In California, the Air Toxics Program and the Air Toxics “Hot Spots” Information and Assessment Act regulate TACs. In Los Angeles County, operators of certain types of facilities must submit emissions inventories. The Air Toxics Program categorizes each facility as being high, intermediate, and low-priority based on the potency, toxicity, quantity, and volume of its emissions. If the risks are above established levels, facilities are required to notify surrounding populations and to develop and implement a risk reduction plan.

Greenhouse Gases

GHGs in the atmosphere affect the Earth’s heat balance by absorbing infrared radiation. This layer of gases prevents the escape of heat, similar to the function of a greenhouse. According to the U.S.

EPA, the principal GHGs that enter the atmosphere because of human activities are carbon dioxide, methane, nitrous oxide, and fluorinated gases.

GHGs contribute to the destruction of the Earth's naturally-occurring ozone, which provides protection from the damaging effects of solar ultraviolet radiation. The biggest contributors to ozone depletion are chlorofluorocarbons (CFCs), halons, carbon tetrachloride, methyl chloroform, and other halogenated compounds.

Climate Change

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). While climate change is not solely the result of poor air quality, the two have many common causes and effects.

Scientists believe that the Earth is warming faster than at any time in the previous 1,000 years. According to the California Energy Commission, the average global surface temperature has increased by 1.1 degrees Fahrenheit since the 19th century, and the 10 warmest years of the last century have occurred within the last 15 years.

A large GHG contributor is carbon dioxide, and in California, more than 35 percent of the fossil fuel emissions of carbon dioxide are related to transportation uses. As Los Angeles County has some of the highest rates of single occupant vehicle use, traffic congestion, and VMTs in the country, it is a significant contributor to climate change in the region.

The impacts of climate change are exacerbated by increased emissions during warm weather. Warmer temperatures cause increased energy consumption through the use of air conditioners, which increases emissions from power plants and vehicles. Climate change causes warming, drying, and increased winds that result in hotter wildfires that are harder to control. These wildfires result in increased levels of fine particulate matter that could also exceed state and federal standards and harm the public.

Legislation

The Global Warming Solutions Act of 2006 (AB 32) manages and reduces GHG emissions in California. AB 32 requires that CARB establish a comprehensive program of regulatory and market mechanisms to reduce GHG emissions to 1990 levels by the year 2020.

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), is one of many bills that implement AB 32, and requires CARB to develop regional GHG emission reduction targets for automobile and light trucks. It requires the 18 metropolitan planning organizations in California, such as the Southern California Association of Governments (SCAG), to coordinate land use, transportation and housing strategies, and prepare a Sustainable Communities Strategy (SCS) to reduce the amount of VMTs in their respective regions and demonstrate their ability to meet CARB's targets. SCAG adopted its SCS as part of its 2012 RTP. For more information on the 2012 RTP/SCS, please visit SCAG's web site at http://www.scag.ca.gov.

Los Angeles County Energy and Environmental Program

In 2006, the Board of Supervisors adopted an Energy and Environmental Program (EEP) for the development and enhancement of energy conservation and environmental programs for County departments. These programs contribute to the County's efforts to reduce communitywide GHGs and GHGs from County operations. The EEP consists of the following programs:

Energy and Water Efficiency

The EEP establishes a reduction target of 20 percent by 2015, and implements conservation monitoring practices and water and energy shortage awareness programs for County buildings and departments.

Green Building Construction and Operations

The County's Green Building Program consists of the Green Building, Low-Impact Development, and Drought Tolerant Ordinances. For more information on the County's environmental and sustainability programs, please visit http://green.lacounty.gov.

Environmental Stewardship

The Environmental Stewardship Program measures and reduces the County's environmental footprint, including the amount of greenhouse gases produced through direct and indirect County operations, and develops climate change-related policies.

Public Outreach and Education

The Public Outreach and Education Program utilizes the County's communication and outreach channels to share utility industry information, facilitate implementation of subsidy and assistance programs, and spread energy conservation practices throughout the region.

Los Angeles County Community Climate Action Plan

The Los Angeles County Community Climate Action Plan (CCAP) provides policy guidance for reducing GHG emissions generated within the unincorporated areas. The CCAP ensures that the County will be able to reduce its emissions to 1990 levels by 2020. The CCAP includes an emissions inventory for the unincorporated areas and an analysis of the reduction needed to achieve County goals. It analyzes specific actions that result in reduced emissions and lays out a plan for their use and implementation. It also provides a mechanism for tracking and evaluating the County's progress in achieving its climate change goals. The CCAP supports sustainable design and energy efficiency, as well as active and multi-modal transportation strategies to reduce VMT.

The purpose of the CCAP is to: 1) establish a baseline emissions inventory and reduction needed to meet County goals; 2) identify specific actions that will measurably reduce GHG emissions; 3) implement state and local level measures; and 4) provide a mechanism for ongoing tracking and updates to the CCAP. For more information, please visit http://planning.lacounty.gov/ccap.

III. Issues

1. Coordinating Land Use, Transportation and Air Quality Planning

Where and how land is developed can impact air quality, which impacts public health. People who live near major sources of air pollution are at a greater health risk. Sensitive receptors, or users of residences, schools, daycare centers, parks and playgrounds, or medical facilities, are particularly susceptible to the impacts of air pollution. Furthermore, CARB advises distancing requirements for sources of air pollution, including freeways, distribution centers, ports, rail yards, refineries, chrome platers, dry cleaners that use perchloroethylene, and gasoline dispensing facilities.

Studies indicate that residing near sources of traffic pollution is associated with adverse health effects, such as the exacerbation of asthma, onset of childhood asthma, non-asthma respiratory symptoms, impaired lung function, reduced lung development during childhood, and cardiovascular morbidity and mortality. These associations are diminished with distance from the pollution source. Given the association between traffic pollution and health, many recommend that residences, schools and other sensitive uses be sited at least 500 feet from freeways, in particular. The Health Effects Institute (HEI) indicates that exposure to traffic pollution may occur up to 300 to 500 meters (approximately 984 to 1640 feet). The range reported by HEI reflects the variable influence of background pollution concentrations, meteorological conditions, and seasons. In addition, siting parks and active recreational facilities near freeways may increase public exposure to harmful pollutants, particularly while exercising. Studies show that heavy exercise near sources of traffic pollution may have adverse health effects.

In addition, there is a direct link between transportation activities and air pollution. According to the SCAQMD, mobile sources of pollution, such as cars, trucks, buses, construction equipment, trains, ships and airplanes, account for 60 percent of all smog producing emissions in the region. Additionally, highly congested freeways and highways further contribute to the conditions that produce air pollution. The continued population growth that is projected for Los Angeles County could overwhelm these air quality gains unless careful attention is paid to voluntary and regulatory measures that reduce transportation-related emissions.

Developing land and transportation systems to reduce the need for vehicle trips and provide alternative modes of transportation can improve air quality. In addition, integrating land use plans, transportation plans, and air quality management plans can help minimize exposure to toxic air pollutant emissions from industrial and other stationary sources. The Mobility Element and Land Use Element provide transportation-based policies to reduce VMTs, such as improving the efficiency of the County roadway network; mobility management, such as increased ridesharing and vanpools; and improving the jobs-housing balance. In addition, the preservation of existing natural habitats and vegetation, as discussed in the Conservation and Natural Resources Element, can also reduce and mitigate air pollution impacts. Natural plant communities, especially woodlands and forests, contribute significant ecosystem service benefits that are extremely costly to replicate once they are gone.

2. Responding to Climate Change

Climate change will have a number of adverse impacts on ecosystems and the economy. Various scenarios predict intense flooding or prolonged droughts, higher temperatures that can lead to frequent wildfires, and rising sea levels that will affect low-lying coastal areas. Therefore, it is critical to develop strategies to reduce greenhouse gas emissions, and also to address the impacts related to agriculture, public health, ecosystems and natural resources, energy, infrastructure, and emergency management. Development of climate change adaptation strategies in particular may be conducted sequentially, starting with the evaluation of threats, vulnerability and risk assessments, identification of mitigation actions, and implementation. The strategies may also investigate short and long-term funding mechanisms.

IV. Goals and Policies

Goal AQ 1: Protection from exposure to harmful air pollutants.	
Topic	**Policy**
Air Pollutants	Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.
	Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials.
	Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible.
	Policy AQ 1.4: Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxics from identified mobile and stationary sources.
Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning.	
Topics	**Policy**
Air Quality, Land Use, and Transportation	Policy AQ 2.1: Encourage the application of design and other appropriate measures when siting sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways.
	Policy AQ 2.2: Participate in, and effectively coordinate the development and implementation of community and regional air quality programs.
	Policy AQ 2.3: Support the conservation of natural resources and vegetation to reduce and mitigate air pollution impacts.
	Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses.
Goal AQ 3: Implementation of plans and programs to address the impacts of climate change.	
Topic	**Policy**
Climate Change	Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.
	Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015.
	Policy AQ 3.3: Reduce water consumption in County operations.

	Policy AQ 3.4: Participate in local, regional and state programs to reduce greenhouse gas emissions.
	Policy AQ 3.5: Encourage energy conservation in new development and municipal operations.
	Policy AQ 3.6: Support rooftop solar facilities on new and existing buildings.
	Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas.
	Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts.

V. Air Quality Element Implementation Program

- PACE Financing Program
- Climate Change Adaptation Program

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Boxes]

Air Quality Regulating Agencies

The following are federal, state and local agencies that regulate air quality in Los Angeles County:

U.S. Environmental Protection Agency

The U.S. EPA enforces the Clean Air Act through multiple programs, policies and regulations. The U.S. EPA focuses on pollution prevention and energy efficiency, indoor and outdoor air quality, industrial air pollution, pollution from vehicles and engines, radon, acid rain, stratospheric ozone depletion, climate change, and radiation protection. The U.S. EPA sets emissions standards for mobile sources, such as automobiles, aircraft, certain ships, and locomotives. Information on the programs and activities in U.S. EPA Region IX, which includes California, can be found on the U.S. EPA web site at http://www.epa.gov/region9.

California Air Resources Board

The California Air Resources Board is responsible for the implementation of the Clean Air Act, which establishes state ambient air quality standards, and several programs related to emission reduction activities. Per AB 32, CARB is also responsible for establishing a program to track and report GHG emissions, and to regulate, measure, and enforce the required GHG emission reductions. Information on CARB's programs and activities can be found on their web site at http://www.arb.ca.gov.

South Coast Air Quality Management District and the Antelope Valley Air Quality Management District

The SCAQMD and AVAQMD are responsible for monitoring air quality as well as planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in Los Angeles County. The SCAQMD jurisdiction is approximately 10,743 square miles and includes Los Angeles County except for the Antelope Valley, which is covered by the AVAQMD. Information on air quality management districts can be found

on the AQMD web site, located at http://www.aqmd.gov.

Los Angeles Regional Collaborative for Climate Action and Sustainability (LARC)

LARC is a network of leaders from government, the business community, academia, labor, and environmental and community groups dedicated to encouraging greater coordination and cooperation in addressing climate change at the local and regional levels. The purpose of this collaboration is to share information, foster partnerships, and develop systemwide strategies to address climate change and promote a green economy through sustainable communities.

Chapter 9: Conservation and Natural Resources Element

I. Introduction

The County's role in the protection, conservation and preservation of natural resources and open space areas is vital as most of the natural resources and open space areas in Los Angeles County are located within the unincorporated areas. The County must act as the steward for Los Angeles County's natural resources and available open space areas, and conserve and protect these lands and resources from inappropriate development patterns.

The Conservation and Natural Resources Element guides the long-term conservation of natural resources and preservation of available open space areas. The Conservation and Natural Resources Element addresses the following conservation areas: Open Space Resources; Biological Resources; Local Water Resources; Agricultural Resources; Mineral and Energy Resources; Scenic Resources; and Historic, Cultural and Paleontological Resources.

II. Open Space Resources

This section addresses open space and natural area resources, and provides policies for preserving and managing dedicated open space areas through preservation, acquisition, and easements.

Background

Open space resources consist of public and private lands and waters that are preserved in perpetuity or for long-term open space and recreational uses. Existing open spaces in the unincorporated areas include County parks and beaches, conservancy lands, state parklands, and federal lands, such as national forests. Open space resources include private lands, such as deed-restricted open space parcels and easements. Various stakeholders share a responsibility to manage and preserve the available open space resources in the unincorporated areas.

Open Space Resources

Table 9.1 shows a summary of open space resources areas, by acreage and category.

Table 9.1: Unincorporated Los Angeles County Open Space Resources, in Acres

Open Space Resource Category	Acres
Conservancy Lands	48,271.79
County Lands	16,834.24
Federal Lands	679,629.58
Private Open Space Lands	9,181.03
State Lands	50,893.72

Total Open Space	804,810.36

Source: Los Angeles County Department of Regional Planning GIS Section

County Lands

The County Lands category includes open space areas owned and maintained by the Los Angeles County Department of Parks and Recreation (DPR): natural areas, wildlife and wildflower sanctuaries, and regional parks with significant natural resources. Examples include: Devil's Punchbowl Natural Area, High Desert Wildlife Sanctuaries, Whittier Narrows Recreation Area, Santa Fe Dam Recreation Area, and Schabarum Regional Park. Please refer to the Parks and Recreation Element, Appendix E and Appendix F for a full discussion on parkland resources.

Conservancy Lands

The unincorporated areas house scenic areas and diverse topographic, geologic and vegetative features that provide important habitat for wildlife, but also hold recreational value. State-created and non-profit conservancies play a critical role in preserving many of these areas through the acquisition and preservation of available open space areas. A list and descriptions of partnering conservancies and non-state public agencies can be found in Appendix E.

State Lands

The State Lands category includes open space and recreation areas owned and operated by the State. The California Department of Parks and Recreation has been instrumental in providing open space and recreation areas in the unincorporated areas. State parklands preserve important natural habitat areas, while providing both passive and active recreational opportunities that attract users throughout the region. The County is committed to preserving the quality of these areas by planning for compatible uses on adjacent lands. Examples of State Lands include Malibu Creek and Topanga State Park.

Federal Lands

The Federal Lands category refers to public lands managed by the federal government including:

National Forest

The Angeles National Forest and a small portion of the Los Padres National Forest encompass nearly 650,000 acres of land within the unincorporated areas. The Angeles National Forest stretches across Los Angeles County in two sections encompassing the San Gabriel Mountain Range, and is 1,018 square miles, or 25 percent of the land area of Los Angeles County. The U.S. Forest Service is responsible for managing public forest lands. Its mission is the stewardship of forest lands and resources through programs that provide recreation and multiple uses of natural resources, wilderness areas, and significant habitat areas. The U.S. Forest Service prepares and periodically updates the Land and Resource Management Plan as a policy guide for the use of lands in the national forests.

Within the boundaries of the national forests, nearly 40,000 acres are privately-owned. For these parcels, commonly referred to as in-holdings, the County retains responsibility for land use regulation.

National Recreation Area

The Santa Monica Mountains National Recreation Area is a part of the National Park System and is managed by the National Park Service. The Recreation Area preserves natural habitats, historical and cultural sites, offers recreational opportunities, and improves the air quality for the Los Angeles basin. It is covered by chaparral, oak woodlands, and coastal sage scrub, and home to many species that are listed as rare, threatened, or endangered.

Bureau of Land Management Land

The U.S. Bureau of Land Management (BLM) owns thousands of acres of open space land in the northern portion of Los Angeles County. These primarily desert lands serve to preserve federally-listed endangered and threatened species, and where compatible, provide recreational, agricultural, energy, and mining activities.

Private Open Space

Open space dedications are defined as privately-owned lands that have been set aside for permanent open space as part of a larger land development proposal.

The California Open Space Easement Act of 1969 sets forth general conditions governing the creation of recognized open space easements. Agreements or contracts establishing such easements specify the standards and conditions for uses and activities permitted within the area covered. Commitment of such lands to open space use in perpetuity is typically assured through deed-restrictions or dedication of construction rights secured at the time of development permit approval. Within dedicated open space areas, standards and conditions for use are specifically set forth as conditions of the zoning permit or subdivision tract map.

Open Space Resources Policy Map

Figure 9.1: Open Space Resources Policy Map

The Open Space Resources Policy Map, Figure 9.1, aids decision-makers in identifying and maintaining open space in an undisturbed state for public recreation, scenic enjoyment, and for the protection and study of natural ecosystems. Open Space Resources are part of the County's Special Management Areas. For more information on the Special Management Areas, please refer to the Land Use Element.

Issues

1. Open Space Preservation

Increased population growth and ongoing development activities continue to impact open space areas. Dedicated open space areas are vital for the recreational, scenic and wilderness opportunities they provide. Leapfrog development and sprawl affect the ability to preserve biotic diversity and to provide appropriate recreational amenities. Because of sprawling development, open space areas are becoming increasingly fragmented or isolated, which decreases connectivity.

2. Open Space Acquisition and Planning

The acquisition and preservation of open space areas is a challenging and expensive endeavor. Additionally, there is no coordinated master plan to acquire, manage and preserve available open

space areas. Working in partnership with conservancies and other stakeholders that can purchase and acquire available open space lands is an important part of the County's open space acquisition strategy. A coordinated and collaborative effort to manage and fund a countywide open space master plan is needed to adequately protect available open space areas.

Goals and Policies for Open Space Resources

Goal C/NR 1: Open space areas that meet the diverse needs of Los Angeles County.	
Topic	**Policy**
Open Space Preservation and Conservation of Natural Areas	Policy C/NR 1.1: Implement programs and policies that enforce the responsible stewardship and preservation of dedicated open space areas.
	Policy C/NR 1.2: Protect and conserve natural resources, natural areas, and available open spaces.
Open Space Acquisition	Policy C/NR 1.3: Support the acquisition of new available open space areas. Augment this strategy by leveraging County resources in concert with the compatible open space stewardship actions of other agencies, as feasible and appropriate.
	Policy C/NR 1.4: Create, support and protect an established network of dedicated open space areas that provide regional connectivity, between the southwestern extent of the Tehachapi Mountains to the Santa Monica Mountains, and from the southwestern extent of the Mojave Desert to Puente Hills and Chino Hills.
	Policy C/NR 1.5: Provide and improve access to dedicated open space and natural areas for all users that considers sensitive biological resources.
	Policy C/NR 1.6: Prioritize open space acquisitions for available lands that contain unique ecological features, streams, watersheds, habitat types and/or offer linkages that enhance wildlife movements and genetic diversity.
Goal C/NR 2: Effective collaboration in open space resource preservation.	
Topic	**Policy**
Open Space Collaboration and Financing	Policy C/NR 2.1: Establish new revenue generating mechanisms to leverage County resources to enhance and acquire available open space and natural areas.
	Policy C/NR 2.2: Encourage the development of multi-benefit dedicated open spaces.
	Policy C/NR 2.3: Improve understanding and appreciation for natural areas through preservation programs, stewardship, and educational facilities.
	Policy C/NR 2.4: Collaborate with public, non-profit, and private organizations to acquire and preserve available land for open space.

III. Biological Resources

The physical environment of the unincorporated areas is extremely diverse: elevations range from sea level to 10,000 feet; soils vary due to prehistoric volcanic activity, marine sedimentation and river deposition; and climates that are mild and moist near the coast change to severe temperature extremes in the high mountains and desert. The unincorporated areas boast a treasury of natural features, including coastlines, islands, dunes, marshes, tidal flats, sea cliffs, hills, mountain ranges, freshwater ponds, rivers, streams, wetlands, woodlands, deserts, chaparral, grasslands, valleys, and plains. As a result, the unincorporated areas contain a unique and varied collection of biological resources, including habitats and species—some of which may not be found anywhere else in the world. For example, Los Angeles County is part of the California Floristic Province, which has been designated by Conservation International as one of the world's top 25 hotspots of biodiversity loss—the only one in the United States.

The main types of biological resources in the unincorporated areas are: regional habitat linkages; forests; coastal zone; riparian habitats, streambeds and wetlands; woodlands; chaparral; desert shrubland; alpine habitats; Significant Ecological Areas (SEAs); and Coastal Resource Areas (CRAs). The General Plan works to protect and enhance these resources, and ensure that the legacy of the unique biotic diversity is passed on to future generations.

In addition, there are two sites in the unincorporated areas that are controlled by the U.S. Department of Defense and that contain important biological resources. The resources and protections on Edwards Air Force Base in the Antelope Valley are described in detail in the Antelope Valley SEA description in Appendix E. The resources and protections on San Clemente Island are described in detail in the Coastal Zone Resources section in Appendix E.

Background

Regional Habitat Linkages

Biological resources and important habitat areas in the unincorporated areas are part of a greater habitat linkage that extends beyond Los Angeles County boundaries. Figure 9.2 maps the regional habitat linkages that connect biological resource areas in Los Angeles County with resource areas in adjacent local jurisdictions. The areas depicted are based on national forest boundaries, the County's SEAs, and a series of missing linkage design studies conducted by the South Coast Wildlands Project. For a detailed description of these linkages, please refer to Appendix E. The following linkages are important to ensure greater regional biodiversity, and species and habitat connectivity:

- The Puente Hills SEA is a linkage connecting the Puente Hills with the Chino Hills in Orange County.
- Linkages in the Santa Monica Mountains, Santa Susana and Simi Hills, Santa Clara River and Santa Felicia Creek SEAs connect to habitats in Ventura County and to the Tehachapi and San Gabriel Mountains.
- The San Andreas SEA is a linkage to the Santa Clara River Watershed, San Gabriel Mountains, Antelope Valley, and Tehachapi Mountains.

- The Antelope Valley SEA serves as a linkage between the San Gabriel Mountains and the Mojave Desert, and provides wildlife movement opportunities into open areas in Kern County and San Bernardino County.

Figure 9.2: Regional Habitat Linkages Map

National Forests

The two National Forests, Los Padres National Forest and Angeles National Forest, contain extensive biological resources. The Angeles National Forest contains the largest area of dedicated open space in Los Angeles County. A vast number of wildlife species depend on the Angeles National Forest for protection, foraging, and breeding. Two thirds of the Angeles National Forest has slopes steeper than 60 percent, with elevations ranging from 1,200 to 10,000 feet above sea level. General habitat types within the National Forests include riparian habitats, streambeds, wetlands, chaparral, coastal sage scrub, and woodlands, each of which is described below. In addition to these, Angeles National Forest also supports alpine habitats which are typified by low-growing herbaceous and scrubby vegetation above the tree line.

Activities that occur in the National Forests have a potential impact on biotic resources, as well as on the quality of local water supplies and the health of major watersheds. There are 240 miles of perennial rivers and streams, as well as 19 lakes and reservoirs. The floor of the National Forests allows rainfall and snowmelt to replenish groundwater basins, which provides the unincorporated areas with approximately 13 percent of its annual water supply. Surface water runoff fills streams and rivers, which support riparian habitats and which, in the case of the Angeles National Forest, flow downstream into the channelized waterways of the Los Angeles River and its tributaries before reaching the Pacific Ocean. To protect these forest functions, the U.S. Forest Service has identified two thirds of the National Forests in Los Angeles County as sensitive watershed areas.

The County is responsible for the land use regulation of the nearly 40,000acres of privately-owned in-holdings within the National Forest boundaries. Much of this land is in remote locations, subject to a high degree of natural hazards, and lacks adequate access to paved roads and water supply. The County does not encourage development in the national forests, and regulation is coordinated closely with the U.S. Forest Service.

Coastal Zone

The biological resource value in the coastal zone, which includes San Clemente Island, Santa Catalina Island, Marina del Rey, Ballona Wetlands and the Santa Monica Mountains, is significant. The study and management of these resource areas is more rigorous than any other area in Los Angeles County, and any land disturbance is regulated through coastal land use plans and local coastal programs, in conjunction with the California Coastal Commission.

Biological resources in the coastal zone are identified through Sensitive Environmental Resource Areas (SERAs), which contain terrestrial or marine resources that, because of their characteristics and/or vulnerability, require special protection. SERAs are comprised of the following sub-categories: Environmentally Sensitive Habitat Areas (ESHAs); Significant Woodlands and Savannahs; Significant Watersheds; Malibu Cold Creek Resource Management Area; and Wildlife Migration Corridor. SERAs are not intended to function as isolated preservation areas, but as areas subject to strictly-enforced environmental resource protections and land use regulations.

Biological resource management and regulation on Santa Catalina Island is implemented through the Santa Catalina Island Local Coastal Program (LCP). Island resources, such as Significant Ecological Areas (SEA), are identified in the LCP and are subject to restrictive development regulations. Any changes to the SEA boundaries or associated regulations require an amendment to the LCP and certification by the California Coastal Commission. Biological resource management and regulation on Marina del Rey is also implemented through an LCP.

Land use regulation and jurisdictional authority in the Santa Monica Mountains Coastal Zone involves many public entities. In the unincorporated areas, biological resource protection is implemented through the Malibu Land Use Plan and the Malibu Coastal Program District, and by both the County and the California Coastal Commission.

Finally, resources within San Clemente Island and the Ballona Wetlands are managed by the U.S. Navy and California Department of Parks and Recreation, respectively.

For more information on the biological resources in the coastal zone, please refer to Appendix E.

Riparian Habitats, Streambeds and Wetlands

Riparian habitats are comprised of vegetation and other physical features that are typically found on stream banks and flood plains associated with streams, lakes, or other bodies of perennial or nearly-perennial surface water. Streambeds are the physical confines that water typically flows through, either perennially or after rain events. Riparian habitats and streambeds are of inherent value to local and regional ecosystems. They serve as important connectors to up- and downstream ecosystems or adjacent habitats; provide critical value to migratory birds; contribute to the quality of habitat linkages and wildlife corridors; and play a crucial role in maintaining surface and subsurface water quality.

Wetlands are areas that are inundated or saturated by surface water or groundwater at a frequency and duration that are sufficient to support vegetation, which is typically adapted for life in saturated soil conditions. Examples of wetlands include swamps, marshes, bogs, vernal pools, and playa lake areas. However, wetlands can also remain dry for long periods of time (e.g., arroyos or ephemeral streams, characteristic of the American Southwest), which makes their identification and management potentially difficult. Wetlands contribute to water quality and the overall health of watersheds in several ways. They slow water flow, decrease erosion, filter water runoff, and provide habitat for many endangered plant and animal species.

The Emergency Wetlands Resources Act establishes a national wetlands conservation program, which requires states to include wetlands in their Comprehensive Outdoor Recreation Plans for management and preservation. California has lost over 90 percent of its original wetland areas, and Los Angeles County has lost 95 percent. The County is dedicated to preserving its remaining wetlands and supports the wetland reclamation and conservation efforts of other public agencies and numerous non-profit organizations. In addition to County policy and regulation, projects that are subject to CEQA and located in a wetland are forwarded to applicable state and federal agencies for further review and permitting requirements.

Woodlands

The County's oak woodlands are an important resource that provides an abundance of aesthetic, ecological, and economic benefits to residents. Oak woodland habitats are the most diverse terrestrial ecosystems in California. Similarly, riparian woodlands, California walnut, juniper, and Joshua tree woodlands provide habitat for multiple species within a concentrated area. Various

types of woodlands are found in the unincorporated areas, including riparian woodlands; California walnut woodlands in the San Gabriel Valley and Puente Hills; juniper and Joshua tree woodlands in the Antelope Valley; and oak woodlands countywide.

Chaparral

Chaparral consists of broad-leaved or needle-leaved, sclerophyllous (hard-leaved), medium height to tall shrubs that form a dense cover on steep slopes, usually below 5,000 feet in Southern California. It is a common shrub community composed of robust, mostly evergreen species. Chaparral types are identified according to their dominant plant species. These may include chamise, buck brush, California lilac, scrub oak, interior live oak, or birch-leaf mountain-mahogany on north-facing exposures. Coastal occurrences of chaparral may include laurel sumac, toyon, lemonade berry, big-pod ceanothus and manzanita as dominant species. Additional species that often occur include scrub oaks (several species), California buckwheat, chaparral yucca, sugar bush, holly-leaved cherry, holly leaf redberry, hoary leaved ceanothus, black sage, and sawtooth goldenbush on south-facing slopes. Thick leaved yerba santa may be abundant along dirt roads and other disturbed areas. In the canyons bottoms, where groundwater levels are higher, giant rye grass, blue elderberry, sacapellote, redberry, toyon, and holly-leaved cherry may occur.

Coastal Sage Scrub

Coastal sage scrub is shorter in stature than chaparral and is dominated by drought-deciduous species, including California sagebrush, bush sunflower, white sage, black sage, and California buckwheat. Other common species within this community may include woolly blue-curls, chaparral yucca, black sage, Acton encelia (in more inland locations), white sage, and chamise. A variety of less common associated species are also present including lance-leaved live-forever, common tarplant, beavertail cactus, Turkish rugging, and southern California morning-glory. Disked or cleared areas that have regrown may have a dense cover of oats and bromes, California poppy, fiddleneck, several species of lupines, popcorn flower, comb-bur and other disturbance-favored native annuals.

Desert Scrub

Desert scrub is a comprehensive plant assemblage term applied for a number of relatively low-stature, widely-spaced desert formations of shrubs and subshrubs, commonly occurring on open, sandy soils where groundwater is inaccessible to all but a few deep-rooted species. Dominants include Great Basin sagebrush, antelope bush, brittlebush, creosote bush, several species of saltbush, rubber rabbitbrush, cheesebush, sages, winterfat, and burrobrush, often with one or more perennial grass species.

Significant Ecological Areas (SEAs) and Coastal Resources Areas (CRAs)

A Significant Ecological Area (SEA) designation is given to land that contains irreplaceable biological resources, as detailed in Appendix E. Cumulatively, the 21 SEAs and nine Coastal Resource Areas (CRAs) represent the wide-ranging biodiversity of Los Angeles County, and contain its most important biological resources. Each individual SEA is sized to support sustainable populations of its component species, and includes undisturbed or lightly disturbed habitat along with linkages and corridors that promote species movement. Table 9.2 details the 21 SEAs and nine Coastal Resources Areas of the County. Note that two Coastal Resource Areas, the Santa Monica Mountains Coastal Zone and Palos Verde Coastline, are linked to SEAs that are not entirely within Coastal Resource Areas.

Table 9.2: Significant Ecological Areas and Coastal Resource Areas

Significant Ecological Areas	Coastal Resource Areas
• Cruzan Mesa Vernal Pools • East San Gabriel Valley • Griffith Park • Harbor Lake Regional Park • Joshua Tree Woodlands • Madrona Marsh Preserve • Palos Verdes Peninsula and Coastline • Puente Hills • Rio Hondo College Wildlife Sanctuary • San Andreas • San Dimas Canyon and San Antonio Wash • San Gabriel Canyon • Santa Clara River • Santa Felicia • Santa Monica Mountains • Santa Susana Mountains and Simi Hills • Tujunga Valley and Hansen Dam • Valley Oaks Savannah • Verdugo Mountains	• El Segundo Dunes • Malibu Coastline • Palos Verdes Coastline (ocean and shoreline portions) • Point Dume • Santa Catalina Island • Coastal Zone of the Santa Monica Mountains • Terminal Island (Pier 400)

Figure 9.3 Significant Ecological Areas and Coastal Resource Areas Policy Map

SEAs are part of the County's Special Management Areas Policy Map (Figure 6.1) in the Land Use Element. The County's SEA Program has a long history going back to the 1970s. The SEA Program, for those SEAs located in unincorporated areas, is administered through the General Plan goals, policies and implementation program and the SEA Ordinance. Some SEAs are located entirely or partially outside of the County's jurisdiction in cities, along the coastline, or within national forest land. Appendix E provides more information on the history of the SEA Program, guiding principles, criteria for designation, and detailed summaries of the biological resources contained within each SEA. The nine CRAs are included in the Significant Ecological Areas map. CRAs are located within the coastal zone and include biological resources equal in significance to SEAs. Protection of these areas must defer ultimately to the authority of the California Coastal Commission. Of particular note

for the CRAs, the coastal zone of the Santa Monica Mountains and the entirety of Santa Catalina Island are regulated through their individual local coastal programs.[1]

The objective of the SEA Program is to conserve genetic and physical diversity by designating biological resource areas that are capable of sustaining themselves into the future. However, SEAs are not wilderness preserves. Much of the land in SEAs is privately-held, used for public recreation, or abuts developed areas. The SEA Program must therefore balance the overall objective of resource preservation against other critical public needs. The General Plan goals and policies are intended to ensure that privately-held lands within the SEAs retain the right of reasonable use, while avoiding activities and developments that are incompatible with the long-term survival of the SEAs.

Certain uses of the SEAs are compatible by definition with the long-term sustainability of biological resources. Some examples of uses that do not conflict with the goals of the SEA Program include: regulated scientific study; passive recreation, including wildlife observation and photography; and limited picnicking, riding, hiking and overnight camping. Many other uses may also be compatible with the SEA Program, or may partially or fully mitigate against potential impacts through careful site design and stewardship. In particular, the following uses may be determined compatible by scientific review or biotic surveys, or through the addition of conditions that are intended to protect against site specific and cumulative impacts to biotic resources in the SEA:

- Low-density or clustered residential uses that are compatible with identified biotic resources present in or affected by the site.
- Low-intensity local or visitor-serving commercial uses.
- Essential public and semi-public uses that are necessary for health, safety and welfare, and that cannot be relocated to alternative sites.
- Agricultural uses that are compatible with identified biotic resources that are present on or near the site.
- Extractive uses, including oil and gas recovery, and rock, sand and gravel quarrying, which are compatible with identified biotic resources.

More complex or intensive types of developments within SEAs are not precluded from development, but may require additional technical review to ensure that projects properly identify existing resources and potential impacts. The Los Angeles County Department of Regional Planning (DRP) assumes a responsibility to assist these types of projects with site design in the early stages of the project to ensure that projects are sensitive to and compatible with the resources of the area. The process of analyzing impacts to existing biological resources and determining SEA compatibility is

[1] Conceptual SEAs are depicted to show proposed SEA Map updates based on the criteria for SEA designation established by the General Plan. Conceptual SEAs are to be considered and effective only through the preparation and adoption of community-based plans.

designed to provide careful evaluation of projects within SEAs, in order to ensure that the ecological function of the SEA is maintained.

Generally, complex or intensive types of developments in the SEAs require an SEA Conditional Use Permit (SEA CUP). The SEA Technical Advisory Committee (SEATAC) is an expert advisory committee that assists the DRP and the Los Angeles County Regional Planning Commission in assessing applications for SEA CUPs by providing recommendations on the biological analyses conducted for SEA CUPs, and on the project's compatibility with SEA resources.

Sensitive Local Native Resources

The County considers authoritatively defined sensitive local native resources, including species on watch lists, as important resources to identify and conserve. Examples of authoritatively compiled databases include lists on the Audubon Society's "Los Angeles County Sensitive Bird List," and those in the inventory of the California Native Plant Society. For more information, please visit the Los Angeles Audubon Society web site at: http://losangelesaudubon.org/, and the California Native Plant Society web site at http://www.cnps.org/cnps/rareplants/inventory/.

Issues

1. Preservation of Biotic Diversity

Development continues to be the main cause of species decline in the Southern California region, where approximately 20 percent of the species on the federally-endangered species list are found. Although both federal and state agencies are tasked with protecting their listed species, the County has a role to play in species survival when it decides whether or not to approve development within habitats that contain endangered and threatened species. The SEA Program balances future development and human activities against the preservation of irreplaceable biotic resources. The SEA designation does not protect or identify every individual biotic resource, and SEAs are not preserves or conservation areas; rather, SEAs are areas in which planning decisions are made with extra sensitivity toward biological resources and ecosystem functions. In order to accommodate potential development pressures, the SEAs were designed as large-scale areas connected to regional resources, creating a sufficient habitat and mobility areas for species. However, the resiliency and long-term sustainability of the SEAs is dependent upon careful land use decisions by the County to maintain core habitats and linkages.

2. SEA Monitoring and Status Reporting

SEAs are large and changing areas containing evolving resources, and new science, species, or development practices may create a need for changes to the SEA Program over time. In order to meet the changing needs of the SEA Program, and assess progress in implementation, the County should periodically review the SEA Program. This periodic review may include undertaking new studies, monitoring approved uses, disclosing impacts of development and human activities on biological resources and, when necessary, amending the SEA Ordinance, SEA boundaries and technical descriptions to address any changes required to meet the overall objective of the SEA Program.

3. Coordination of Property Rights and Environmental Protection

The SEA Program is a method of balancing private property rights against impacts to irreplaceable biological resources. Preservation of these resources must not compromise the right of privately-held lands to be fairly used by their owners, nor burden them with excessive development costs or regulatory procedures. The SEA Program is tasked with serving the needs of property owners in SEA areas by simplifying the development process when possible, providing clear guidelines and expectations about the requirements for development in SEAs, coordinating with other regulatory agencies, and seeking out financing mechanisms that incentivize the preservation of biological resources and the acquisition of conservation areas.

Goals and Policies for Biological Resources

Goal C/NR 3: Permanent, sustainable preservation of genetically and physically diverse biological resources and ecological systems including: habitat linkages, forests, coastal zone, riparian habitats, streambeds, wetlands, woodlands, alpine habitat, chaparral, shrublands, and SEAs.	
Topic	**Policy**
Protection of Biological Resources	Policy C/NR 3.1: Conserve and enhance the ecological function of diverse natural habitats and biological resources.
	Policy C/NR 3.2: Create and administer innovative County programs incentivizing the permanent dedication of SEAs and other important biological resources as open space areas.
	Policy C/NR 3.3: Restore upland communities and significant riparian resources, such as degraded streams, rivers, and wetlands to maintain ecological function—acknowledging the importance of incrementally restoring ecosystem values when complete restoration is not feasible.
	Policy C/NR 3.4: Conserve and sustainably manage forests and woodlands.
	Policy C/NR 3.5: Ensure compatibility of development in the National Forests in conjunction with the U.S. Forest Service Land and Resource Management Plan.
	Policy C/NR 3.6: Assist state and federal agencies and other agencies, as appropriate, with the preservation of special status species and their associated habitat and wildlife movement corridors through the administration of the SEAs and other programs.
	Policy C/NR 3.7: Participate in inter-jurisdictional collaborative strategies that protect biological resources.
Site Sensitive Design	Policy C/NR 3.8: Discourage development in areas with identified significant biological resources, such as SEAs.

	Policy C/NR 3.9: Consider the following in the design of a project that is located within an SEA, to the greatest extent feasible: • Preservation of biologically valuable habitats, species, wildlife corridors and linkages; • Protection of sensitive resources on the site within open space; • Protection of water sources from hydromodification in order to maintain the ecological function of riparian habitats; • Placement of the development in the least biologically sensitive areas on the site (prioritize the preservation or avoidance of the most sensitive biological resources onsite); • Design required open spaces to retain contiguous undisturbed open space that preserves the most sensitive biological resources onsite and/or serves to maintain regional connectivity; • Maintenance of watershed connectivity by capturing, treating, retaining, and/or infiltrating storm water flows on site; and • Consideration of the continuity of onsite open space with adjacent open space in project design.
	Policy C/NR 3.10: Require environmentally superior mitigation for unavoidable impacts on biologically sensitive areas, and permanently preserve mitigation sites.
	Policy C/NR 3.11: Discourage development in riparian habitats, streambeds, wetlands, and other native woodlands in order to maintain and support their preservation in a natural state, unaltered by grading, fill, or diversion activities.
Goal C/NR 4: Conserved and sustainably managed woodlands.	
Topic	**Policy**
Woodland Preservation	Policy C/NR 4.1: Preserve and restore oak woodlands and other native woodlands that are conserved in perpetuity with a goal of no net loss of existing woodlands.

IV. Local Water Resources

The arid and semi-arid climate and landscape of Los Angeles County require that water be managed as an invaluable resource. The County recognizes that the effective management and preservation of its local water resources are vital to preserving a high quality of life for residents and businesses, as well as for sustaining the functioning of watersheds and the natural environment.

Background

Local Water

The occurrence and movement of water above, on, and below the ground can be explained in general terms by the hydrologic cycle. Precipitation falls to earth, is intercepted by vegetation before it reaches the ground, then soaks into the soil where it infiltrates into shallow and deeper groundwater zones. Water drawn up by vegetation transpires into the atmosphere in the form of water vapor. Similarly, water collected on surfaces and in the soil evaporates into the atmosphere. Collectively, this process of water vapor passing into the atmosphere is called evapotranspiration. During a storm, as the soil approaches saturation and rainfall continues, runoff begins to occur. Rainfall falling on paved surfaces does not soak into the ground. At first, the runoff gathers in small pools and minor depressions on the ground surface. Once these small depressions are filled and rainfall continues, runoff increases, forming rivulets and filling streams, rivers, and lakes. Precipitation, interception, infiltration, evapotranspiration, and runoff occur in the context of a system called a watershed.

Precipitation

During the wet season, storms approach from the west or northwest, with southerly winds that continue until the weather front passes. Nearly all precipitation occurs during the months of December through March, while precipitation during summer months is infrequent, and rainless periods of several months are common. The average annual rainfall across Los Angeles County is 15.65 inches, but the annual average varies from 7.8 inches in the high desert, to 12.1 inches at Los Angeles International Airport (LAX) near the coast, to 27.5 inches at Mt. Wilson. Another examination of characteristic rainfall patterns shows that 85% of all storms within Los Angeles County deposit between 3/4 inch and 1 1/4 inches or less of rain, depending on location.

Snowfall at elevations above 5,000 feet is frequently experienced during winter storms but, except on higher peaks and the northern slopes, melts rapidly. In the coastal plain and mountainous areas, the distribution of rainfall from individual storms generally follows patterns related to elevation and terrain. This distribution is called the orographic effect.

Runoff and Surface Waters

The Pacific Ocean eventually receives the excess runoff that is generated on the coastal plain of Los Angeles. Excess runoff generated in the Antelope Valley of the high desert will eventually arrive at the dry lake bed near the border with Kern County. The high desert can also experience summer thunderstorms, which cause the most serious flooding in that area. Surface flows reach the dry lake bed when the storms in the high desert are large enough for runoff to exceed local infiltration and transpiration.

Runoff can even occur at times of no rain. In urban areas, dry weather runoff can occur as the result of the discharge of process flows and other human endeavors. Examples of process flows include treated wastewater and industrial flows. Excessive irrigation can also contribute to dry weather

runoff. Dry weather discharge from natural springs and seeps can occur in mountainous areas and where high groundwater levels otherwise reach the ground surface. The amount and continuity of springs and seep flows can vary year to year, depending significantly on previous rainfall.

Surface waters occur in the form of streams, rivers, ponds, lakes, and reservoirs. In Los Angeles County, there are over 900 miles of major river systems, 3,600 miles of smaller streams, and 25 square miles of pond, lake, and reservoir surface. Streams and rivers convey surface runoff and can be instrumental in groundwater recharge. They can also serve as corridors for fish and wildlife movement. Streams and rivers support their own habitats as well as link other habitats together.

A number of the ponds, lakes and reservoirs in Los Angeles County are human-made impoundments that serve as water storage facilities. These storage facilities receive and store rainfall and runoff, as well as imported water supplies from outside of Los Angeles County, and hold them until needed at a later time. Examples within Los Angeles County boundaries are Hollywood Reservoir, which is operated by the City of Los Angeles Department of Water and Power, and Pyramid Lake, operated by the Metropolitan Water District of Southern California. Smaller impoundments are operated by other public and private water wholesalers and retailers. Some of these facilities support fish and wildlife, and provide recreation areas for residents that are compatible with flood management and water storage operations.

Some impoundments, which are primarily operated by the Los Angeles County Flood Control District, serve the dual functions of flood protection and storage. Stored runoff collected during the storm season is later released at controlled rates throughout the year for downstream groundwater recharge. For example, an array of Los Angeles County Flood Control District dams in the San Gabriel Mountains provides flood protection, while storing runoff for later release to the San Gabriel River and downstream groundwater recharge areas. These downstream facilities capture close to 80 percent of the runoff that flows from the mountains. Water sources that originate in Los Angeles County provide approximately one third of the area's water supply.

The rate and quantity, as well as the quality, of runoff are significantly influenced by the land use within the tributary area. For example, the amount of impervious surface that accompanies development, in particular, connected impervious surfaces, dictates the volume of runoff produced from most storms. Furthermore, the degree to which flow paths are straightened, channelized, piped, and connected influence how soon runoff appears during a storm and the rate at which it flows. The types of land uses, ranging from open space, single family, and heavy industrial, affect the type and concentration of pollutants that may be carried in the runoff.

For flood protection and erosion control purposes, many of the larger rivers within Los Angeles County are armored with concrete lining. Some rivers, such as the Ballona Creek and Los Angeles River, are mostly lined on the bottoms as well as along the banks. Others, such as the San Gabriel River and Santa Clara River, are armored primarily along their banks.

Also located within Los Angeles County are a number of regional groundwater recharge areas called spreading grounds. Most spreading grounds are owned by the Los Angeles County Flood Control District and are located in areas where the underlying soils are composed of permeable formations and are hydraulically connected to the underlying groundwater basin. Some spreading grounds are owned by the City of Los Angeles and by a few other cities. The total area of regional spreading grounds countywide is 3,361 acres.

Soils, Infiltration, and Groundwater

Soil type and geography will influence the location and amount of rainwater and surface water infiltration. Igneous, metamorphic, and sedimentary rock groups are present within Los Angeles County. The San Gabriel Mountains and Verdugo Hills are composed primarily of highly fractured igneous rock, with large areas of granitic rock formation being exposed. Faulting and deep weathering have produced porous zones in the rock formation; however, rock masses have produced a comparatively shallow soil mantle due to the steepness of slopes, which is a condition that accelerates erosion of the finer material.

Surface soils that are deposited by the movement of water are termed alluvial soils. Valley and desert soils are alluvial and vary from coarse sand and gravel near canyon mouths to silty clay, clay, and sand, and gravel in the lower valleys and coastal plain. The alluvial fill has accumulated by repeated deposition of sediments to depths as great as several thousand feet. This fill is quite porous in areas of relatively low clay content. Geologic structures and irregularities in the underlying bedrock divide the alluvium into several groundwater basins. Valley soils are generally well drained, but there are a few areas containing perched water where groundwater sits above the main aquifer separated by a relatively impermeable layer. Soils are further described in the Agricultural Resources section.

When precipitation and surface water infiltrate naturally into the ground, they first typically travel through an unsaturated soil zone until they reach the water table, which is the layer where the soil is saturated. This layer of soil saturation is called a groundwater basin, or aquifer. Aquifers can hold millions of acre-feet of water and extend for miles. There are numerous major groundwater basins, located geographically as shown in Table 9.3.

Table 9.3: Major Groundwater Basins

	Major Groundwater Basin
Coastal Plain	• Central Basin • West Coast Basin • Santa Monica Basin • Hollywood Basin
San Gabriel Valley	• Main San Gabriel Basin • Upper San Gabriel Canyon Basin • Lower San Gabriel Canyon Basin • Wayhill Basin • Foothill Basin • Glendora Basin • Claremont Heights Basin • Live Oak Basin • Chino Basin • San Dimas Basin • Pomona Basin • Puente and Spadra Basins • Raymond Basin
San Fernando Valley (also known as the Upper Los Angeles River Area)	• San Fernando Main Basin • Sylmar Basin • Verdugo Basin • Eagle Rock Basin
Santa Clarita Valley	N/A
Antelope Valley	N/A

Except during times of drought, groundwater extraction accounts for nearly 1/3 of the water usage in the unincorporated areas. In rural areas, households depend largely on private wells.

Watersheds

A watershed is a geographic area that, due to its terrain and topography, contributes to the flow of surface water, sediments, and transported materials from the land into a common river, lake, groundwater basin, ocean, or other water body. A watershed, also known as a drainage area or catchment, can be large or small, pristine or urbanized. All land is located in a watershed of some sort. Furthermore, just as larger river systems can have smaller tributary streams, a major watershed can also have smaller sub-watersheds within it that define the tributary drainage areas. An action that occurs within an upstream watershed, therefore, can have an impact on downstream conditions.

A healthy watershed is a place where the interrelated functions of the water cycle—water movement, soil movement, and vegetative cover—unite to simultaneously provide the benefits of water supply, clean runoff, healthy microclimate, flood protection, recreation, and habitat.

The following are major watersheds in Los Angeles County, as shown in Table 9.4 and Figure 9.4. For descriptions of these major watersheds, please refer to Appendix E.

Table 9.4: Major Watersheds

Watershed	Sub-Watershed
Antelope Valley Watershed	• Amargosa Creek • Big Rock Creek • Little Rock Creek
Los Angeles Harbor Watershed	• Dominguez Channel
Los Angeles River Watershed	• Tujunga Wash • Verdugo Wash • Arroyo Seco • Rio Hondo • Compton Creek
San Gabriel River Watershed	• Walnut Creek • Puente Creek • Coyote Creek
Santa Clara River Watershed	• Soledad Canyon • Mint Canyon • Bouquet Creek

	• South Fork Santa Clara River
Santa Monica Bay Watershed	• Malibu Creek • Topanga Canyon • Santa Monica Canyon • Ballona Creek

Watershed Management

Watershed management is an effective and comprehensive method to address water resource challenges. Watershed management integrates habitat enrichment and recreation availability with water supply, flood protection, and clean runoff.

Because a watershed encompasses many jurisdictions, water supply, water quality, flood protection and natural resource issues are best managed at a regional or multiple-agency level. The County works within its jurisdiction to improve the health of rivers, streams and lesser tributaries to enhance overall water resources, runoff quality and wildlife habitat. However, watershed integration must be a multi-jurisdictional process. The County has to participate with other stakeholders in various ways to manage the function and health of watersheds.

The collaborative process is the most effective way to engage local stakeholders and local jurisdictions, generate partnerships, collaborate with educational and professional institutions, and develop and implement watershed plans. Such plans should incorporate measures to protect and augment local water supplies, maintain flood protection standards, provide assistance in the event of flooding, encourage recreational opportunities, conserve habitats of native species, and improve the quality of water that flows to rivers, lakes, and the ocean.

Figure 9.4: Major Watersheds Map

Surface Water Quality Regulations

The federal government established the Clean Water Act (CWA) in 1972 to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters” with the goal that “wherever attainable water quality should provide for the protection and propagation of fish, shellfish, and wildlife, and provide for recreation in and on the water.” Under delegated authority from the United States Environmental Protection Agency (EPA), the California Water Resources Control Board (State Water Board) and the nine Regional Water Quality Control Board (Regional Boards) are responsible for implementing portions of the CWA in California, including the development of water quality standards and the implementation of regulatory programs such as the National Discharge Elimination System (NPDES). In 1949, nine California Regional Boards were established to protect the quality of receiving waters from adverse impacts of wastewater discharges. In 1969, the enactment of the Porter-Cologne Water Quality Act (California Water Code) authorized the State Water Board to adopt, review, and revise policies for all water bodies in California. The Act also directed Regional Boards to develop regional Water Quality Control Plans (Basin Plans) that would help protect or restore the beneficial uses of inland waterbodies.

In 1972, the State Water Board adopted the California Ocean Plan for ocean waters of California. Over the years, the Ocean Plan has been amended numerous times, with the most recent amendment in 2012. The Ocean Plan helps to protect the water quality of California's coastal ocean through the control of the discharge of waste into the ocean. The Ocean Plan identifies beneficial uses of ocean waters and establishes water quality objectives and implementation programs to protect those beneficial uses. The beneficial uses to be protected under the Ocean Plan include "industrial water supply; water contact and non-contact recreation, including aesthetic enjoyment; navigation; commercial and sport fishing; mariculture; preservation and enhancement of designated Areas of Special Biological Significance (ASBS); rare and endangered species; marine habitat; fish migration; fish spawning and shellfish harvesting."

In 1975, the Los Angeles Regional Board adopted two basin plans: one for the Santa Clara Basin and another for the Los Angeles Basin. In 1994, the Los Angeles Regional Board adopted a comprehensive Basin Plan applicable to the Los Angeles Region (encompassing Ventura and Los Angeles counties, excluding the Antelope Valley). A majority of the Antelope Valley area of Los Angeles County is under the jurisdiction of the Lahontan Regional Board, while a small portion in the northwest corner of the Antelope Valley is under the jurisdiction of the Central Valley Regional Board, Region 5. The Lahontan Basin Plan took effect in 1995, replacing three earlier plans. Since the 1990's, the Basin Plans have been amended numerous times. The Basin Plan designates beneficial uses for inland and coastal surface waters, establishes water quality objectives and implementation programs and policies to protect those uses. There are up to 24 beneficial uses identified and defined in the Basin. Examples of beneficial uses in the Basin Plan include: municipal and domestic supply; water contact recreation; and preservation of biological habitats. A complete list of the beneficial uses can be found in the basin plans of the Los Angeles, Lahontan and Central Valley regions.

National Pollutant Discharge Elimination System (NPDES)

In 1987, an amendment to the Clean Water Act effectively prohibited the discharge of pollutants to waters of the U.S. from stormwater, unless such discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. The NPDES is a permitting program that establishes a framework for regulating municipal, industrial, and construction stormwater discharges into surface water bodies, including stormwater channels. The Los Angeles Regional Water Quality Control Board (Los Angeles Regional Board), Lahontan Regional Water Quality Control Board and Central Valley Regional Water Quality Board are responsible for implementing the federally-mandated NPDES program in Los Angeles County through the adoption of Orders, which are effectively the NPDES Permits for that region. An NPDES Permit defines the responsibilities of each permittee to control pollutants, including the adoption and enforcement of local ordinances and monitoring programs. Consequently, the County has a Stormwater Ordinance that requires that the discharge, deposit, or disposal of any stormwater and/or runoff to storm drains must be covered by an NPDES Stormwater Permit. For more information on the regional boards' NPDES programs, please visit the State of California Environmental Protection Agency web site at http://www.swrcb.ca.gov/rwqcb4, http://www.swrcb.ca.gov/rwqcb5, and http://www.swrcb.ca.gov/rwqcb6.

As part of its NPDES Program, the Los Angeles Regional Board adopted a new Municipal Separate Storm Sewer Permit (MS4 Permit) in 2012 (MS4 Permits are also sometimes referred to as Stormwater Permits). The remainder of this section discusses the MS4 permit and some of the County's associated efforts.

The Los Angeles Regional Board's 2012 MS4 Permit named 84 incorporated cities, the County, and the Los Angeles County Flood Control District as permittees. The MS4 Permit imposes a number of

basic programs, called Minimum Control Measures, on all permittees in order to maintain a level of acceptable runoff conditions through the implementation of practices, devices, or designs generally referred to as Best Management Practices (BMPs), that mitigate stormwater quality problems. The programs required by the MS4 Permit are: public information and participation; industrial/commercial inspection; planning and land development; development construction; public agency activities; and illicit connection/discharge abatement. For example, the planning and land development program requires the inclusion of post-construction stormwater BMPs into the design of most new public and private development at the project site level to address pollutants generated by specific activities and types of development. The development construction program requires the implementation of temporary BMPs during a project's construction phase. These construction phase BMPs protect water resources by preventing erosion, controlling runoff, protecting natural slopes and channels, storing fluids safely, managing spills quickly, and conserving natural areas. In the public agency activities program, the County and other permittees are directed to implement "good housekeeping" BMPs to eliminate runoff problems that might be associated with an agency's routine activities. These BMPs include material storage management, vehicle washing management, spill containment, and public parking lot sweeping.

The Los Angeles Regional Board's 2012 MS4 Permit offers an integrated-planning approach, called a Watershed Management Program (WMP), in which permittees can collaborate to address water quality priorities on a watershed scale. The WMP allows permittees to customize BMPs and develop multi-benefit projects that contain water quality improvement, flood protection, water conservation, and/or beautification components.

As a result of the Los Angeles Regional Board's 2012 MS4 Permit, in November 2013, the County's Low Impact Development (LID) and Hydromodification Ordinance was amended. More information on the County's LID requirements can be found at http://dpw.lacounty.gov/wmd/LA_County_LID_Manual.pdf.

Areas of Special Biological Significance (ASBSs)

Ocean areas requiring the protection of marine species or biological communities from an undesirable alteration in natural water quality are designated by the California Water Resources Control Board as Areas of Special Biological Significance (ASBSs). There are 34 areas designated as ASBS. Of those, six are located within the jurisdiction of the County. Five ASBSs are located off the coasts of the Channel Islands (one along the coastline of the San Clemente Island and four along the coastlines of Santa Catalina Island). The sixth ASBS (designated as "ASBS-24") is located along the coast of Ventura County and Los Angeles County, extending from Laguna Point to Latigo Point. About two-thirds of ASBS-24 lies along the coastline of Los Angeles County.

Federal and state policies prohibit the discharge of pollutants into areas identified as ASBS. Specifically, the Ocean Plan requires that "waste shall not be discharged to areas designated as being of special biological significance. Discharges shall be located a sufficient distance from such designated areas to assure maintenance of natural water quality conditions in these areas." The County, the Los Angeles County Flood Control District, cities and other public jurisdictions, and private property owners own and maintain dozens of storm drains that discharge into ASBS-24.

Marine Protected Areas

Marine Protected Areas(MPAs) are areas of the ocean where certain activities are limited or restricted to protect or conserve marine life and habitats. There are two MPAs in Los Angeles County—Point Dume and Point Vicente-Abalone Cove. For more information, please visit: https://www.dfg.ca.gov/marine/mpa/scmpas_list.asp.

Issues

1. Watershed Impacts

All development and urban activities occur in a watershed. Rivers, streams, and people can be adversely affected by poorly designed land uses within a watershed. With urbanization comes impervious surfaces, the straightening and channelizing of water courses, the filling of wetlands, intrusion into flood plains, the loss of vegetation, heat island effects, compacted soils, increased and polluted runoff, eroded streams, and the impairment of surface and groundwaters. The General Plan recognizes the importance of utilizing a watershed-based planning approach as a method to protect, conserve and restore resources by utilizing or mimicking natural hydrologic processes. The path to improving local water resources is through improving watershed functions.

2. Surface Water Impairments

The U.S. EPA has found that close to 218 million Americans live within 10 miles of a polluted lake, stream, river, or coastline, and most of Los Angeles County falls within this category. The cost of cleaning polluted water bodies is significant and requires additional funding for local agencies to implement. Water quality regulation and implementation programs are beginning to make a difference, but without major public awareness, behavioral changes, and operational changes, the clean-up process will remain an ongoing challenge.

Federal and state agencies, such as U.S. EPA and Regional Boards, are working to improve the quality of surface and groundwater by identifying contaminants, imposing clean-up efforts, and bringing enforcement actions against polluters. In order to comply with surface water quality regulations to protect existing clean water bodies and restore impaired water bodies, the County and all cities are implementing water pollution prevention programs appropriate for their jurisdiction.

Section 303(d) of the CWA requires states to identify and establish a list of water bodies that do not meet applicable water quality standards. Those water bodies are considered “impaired” and are placed on the CWA Section 303(d) list. A significant number of the water bodies in Los Angeles County, including rivers, lakes, coastal estuaries, bays, and beaches, are included on the 303(d) list. More than a dozen different stormwater and wastewater pollutants including metals, nutrients, indicator bacteria, organics, pesticides, trash, and other contaminants are found in water bodies in Los Angeles County in amounts significantly above established water quality standards.

For each impaired water body, states are required to develop a total maximum daily load (TMDL). A TMDL is a tool by which water quality standards are implemented to restore impaired water bodies. It establishes the allowable pollutant loading that a water body can receive and still attain water quality standards. Any pollution above the TMDL has to be “budgeted,” meaning that the residual pollution is allocated for reduction among the various sources of the pollutant in order to regain the beneficial uses of the water body. As of 2013, there are 34 TMDLs developed for water bodies in Los Angeles County. All of these TMDLs are being implemented through the NPDES Permit. More TMDLs are expected in the future for the remaining pollutants in the 303(d) list.

3. Groundwater Impairment and Depletion

In the more urbanized coastal basin of Los Angeles County, the natural recharge process is hampered by compacted soils and impervious surfaces associated with urbanization and development. In the open space areas of the northern portion of Los Angeles County, where substantial percolation can occur, water demand is so great that annual precipitation and groundwater recharge operations are not sufficient enough to recharge the basins.

Because approximately one-third of the local water supply is drawn from groundwater basins, the quantity and quality of this water source is critical. Contamination from past industrial and agricultural practices, saltwater intrusion, and underground storage tank leakage has decreased usable groundwater supplies.

In an effort to mitigate groundwater depletion, water agencies have developed strategies to recharge groundwater artificially. One strategy involves purchasing water imported from outside Los Angeles County or utilizing recycled water (highly treated wastewater or reclaimed water) and recharging it back into the groundwater basins. Another strategy diverts imported water to certain regional spreading grounds, where it can percolate back into the water basins. The Los Angeles County Flood Control District also diverts a certain amount of stormwater into regional spreading grounds to replenish the groundwater supply.

Highly-treated, recycled waste water is also used for recharging groundwater aquifers through Los Angeles County Flood Control District spreading operations and injection at seawater barriers to resist saltwater intrusion. This recycled water is provided to a large degree by the Los Angeles County Sanitation Districts and to lesser degrees by the Water Replenishment District of Southern California, the City of Los Angeles, and the West Basin Municipal Water District.

In February 2009, the State Water Board adopted Resolution No. 2009-0011, which established a statewide Recycled Water Policy. This policy encourages increased use of recycled water and local stormwater and requires local water, stormwater, and wastewater agencies and other stakeholders to develop a Salt and Nutrient Management Plan (SNMP) for each groundwater basin in California. The objectives are to facilitate basin-wide management of salts and nutrients from all sources in a manner that optimizes recycled water use while ensuring protection of groundwater supply. The SNMP will eventually be adopted by the Regional Board as a Basin Plan Amendment.

Goals and Policies for Local Water Resources

Goal C/NR 5: Protected and useable local surface water resources.	
Topic	**Policy**
Surface Water Protection	Policy C/NR 5.1: Support the LID philosophy, which seeks to plan and design public and private development with hydrologic sensitivity, including limits to straightening and channelizing natural flow paths, removal of vegetative cover, compaction of soils, and distribution of naturalistic BMPs at regional, neighborhood, and parcel-level scales.
	Policy C/NR 5.2: Require compliance by all County departments with adopted Municipal Separate Storm Sewer System (MS4), General Construction, and point source NPDES permits.
	Policy C/NR 5.3: Actively engage with stakeholders in the formulation and implementation of surface water preservation and restoration plans, including plans to improve impaired surface water bodies by retrofitting tributary watersheds with LID types of BMPs.
	Policy C/NR 5.4: Actively engage in implementing all approved Enhanced Watershed Management Programs/Watershed Management Programs and Coordinated Integrated Monitoring Programs/Integrated Monitoring Programs or other County-involved TMDL implementation and monitoring plans.
	Policy C/NR 5.5: Manage the placement and use of septic systems in order to protect nearby surface water bodies.
	Policy C/NR 5.6: Minimize point and non-point source water pollution.
	Policy C/NR 5.7: Actively support the design of new and retrofit of existing infrastructure to accommodate watershed protection goals, such as roadway, railway, bridge, and other—particularly—tributary street and greenway interface points with channelized waterways.
Goal C/NR 6: Protected and usable local groundwater resources.	
Topic	**Policy**
Groundwater Protection	Policy C/NR 6.1: Support the LID philosophy, which incorporates distributed, post-construction parcel-level stormwater infiltration as part of new development.
	Policy C/NR 6.2: Protect natural groundwater recharge areas and regional spreading grounds.
	Policy C/NR 6.3: Actively engage in stakeholder efforts to disperse rainwater and stormwater infiltration BMPs at regional, neighborhood, infrastructure, and parcel-level scales.
	Policy C/NR 6.4: Manage the placement and use of septic systems in order to protect high groundwater.
	Policy C/NR 6.5: Prevent stormwater infiltration where inappropriate and unsafe, such as in areas with high seasonal groundwater, on hazardous slopes, within 100 feet of drinking water wells, and in contaminated soils.

Goal C/NR 7: Protected and healthy watersheds.	
Topic	**Policy**
Watershed Protection	Policy C/NR 7.1: Support the LID philosophy, which mimics the natural hydrologic cycle using undeveloped conditions as a base, in public and private land use planning and development design.
	Policy C/NR 7.2: Support the preservation, restoration and strategic acquisition of available land for open space to preserve watershed uplands, natural streams, drainage paths, wetlands, and rivers, which are necessary for the healthy function of watersheds.
	Policy C/NR 7.3: Actively engage with stakeholders to incorporate the LID philosophy in the preparation and implementation of watershed and river master plans, ecosystem restoration projects, and other related natural resource conservation aims, and support the implementation of existing efforts, including Watershed Management Programs and Enhanced Watershed Management Programs.
	Policy C/NR 7.4: Promote the development of multi-use regional facilities for stormwater quality improvement, groundwater recharge, detention/attenuation, flood management, retaining non-stormwater runoff, and other compatible uses.

V. Agricultural Resources

Agricultural land is an important resource in California and in Los Angeles County. Much of the agricultural land in Los Angeles County has been developed. Therefore, agricultural land is viewed as a non-renewable resource that needs to be protected from conversion and encroachment of incompatible uses.

Background

According to the Los Angeles County Crop Report, Los Angeles County produced over $173 million in agriculture products in 2011. Table 9.5 summarizes the dollar value of the crops and farm products produced, where nursery products remain number one commodity.

Table 9.5: Value of Los Angeles County Agricultural Crops and Commodities, 2011

Commodity	2011 Value
Nursery Products	$96,635,150
Flowers and Foliage	$7,774,900
Fruits and Nuts Crops	$2,999,260
Vegetable Crops	$31,956,680
Field Crops	$22,575,260
Livestock Production	$8,978,030
Apiary	$2,167,600
Forest Products	$19,170
Total	**$173,106,050**

Source: 2011 Los Angeles County Crop and Livestock Report

The trend for agriculture in Los Angeles County is more farms on fewer acres of land. As shown in Table E.1 of Appendix E, according to data from the U.S. Census of Agriculture, since 1997 the number of farms in Los Angeles County has increased; however, the total acreage of land used for farming activities has continually declined. The 2007 U.S. Census of Agriculture identified a total of 1,734 farms in Los Angeles County, which represents a 41 percent increase from the 1997 Census. Despite this increase, the Census shows a decrease in the total number of acres used for farming. In 2007, the total number of acres in Los Angeles County used for farming was 108,463, which is a 17 percent decrease from the 1997 Census. Similarly, data from the 2011 Los Angeles County Crop Report shows that between 2010 and 2011, Los Angeles County saw decreases in the acreage of fruit and nut crops, vegetable crops, and field crops by 32 percent, 12 percent, and 7 percent, respectively.

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service classifies soils into eight categories based on agricultural potential. This classification depends on factors, such as slope, organic matter, flooding potential, and erosion hazards. From this classification, prime soils (Class I and II soils) are identified for agricultural production. Based on this system, the California Department of Conservation Farmland Mapping and Monitoring Program identifies farmland that is ideally suited for agricultural use. The program does not affect local land use decisions, but is an identification tool that can be used for policy purposes by local governments.

Agricultural Resources Areas

Agricultural Resource Areas (ARAs) consist of farmland identified by the California Department of Conservation, including Prime Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Unique Farmland. In addition, the ARAs include lands that received permits from the Los Angeles County Agricultural Commissioner/Weights and Measures.

The ARAs exclude the following: Significant Ecological Areas; approved specific plans; approved large-scale renewable energy facilities; lands outside of the Santa Clarita Valley and Antelope Valley, where farming is concentrated; and lands that are designated Public and Semi-Public (P).

Figure 9.5, Agricultural Resource Areas Policy Map, identifies areas where the County promotes the preservation of agricultural land.

Figure 9.5: Agricultural Resource Areas Policy Map

Issues

1. Agricultural Land Use Compatibility

Increased population growth and accompanying development will result in the conversion of agricultural lands to non-agricultural uses. This is problematic in the northern portion of Los Angeles County, which contains most of the agricultural land and is also experiencing the most rapid population growth. As development in the unincorporated areas expands from urban centers into agricultural areas, conflicts between land uses may occur. Residents of new housing developments often voice concern over odors, dust, and pesticides from neighboring farms. It is important to regulate development adjacent to agricultural land to minimize these impacts.

2. Sustainable Agriculture

Certain agricultural practices have been identified as being major contributors to pollutants that impact air and water quality. It is important that agricultural production address air quality, water quality, water supply and other issues related to sustainability. Sustainable agricultural practices, such as organic farming, can help mitigate the potential impacts of agricultural production.

Goals and Policies for Agricultural Resources

Goal C/NR 8: Productive farmland that is protected for local food production, open space, public health, and the local economy.	
Topic	**Policy**
Agricultural Resources	Policy C/NR 8.1: Protect ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, from encroaching development and discourage incompatible adjacent land uses.
	Policy C/NR 8.2: Discourage land uses in ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, that are incompatible with agricultural activities.
	Policy C/NR 8.3: Encourage agricultural activities within ARAs.
Goal C/NR 9: Sustainable agricultural practices.	
Topic	**Policy**
Sustainable Agricultural Practices	Policy C/NR 9.1: Support agricultural practices that minimize and reduce soil loss, minimize pesticide use, and prevent water runoff from leaching pesticide and fertilizer into groundwater and affecting water, soil, and air quality.
	Policy C/NR 9.2: Support innovative agricultural practices that conserve resources and promote sustainability, such as drip irrigation, hydroponics, organic farming, and the use of compost.
	Policy C/NR 9.3: Support farmers markets, farm stands, and community-supported agriculture.
	Policy C/NR 9.4: Support countywide community garden and urban farming programs.
	Policy C/NR 9.5: Discourage the conversion of native vegetation to agricultural uses.

VI. Mineral and Energy Resources

The Mineral and Energy Resources section of the Conservation and Natural Resources Element addresses the use and management of valuable energy and mineral resources in the unincorporated areas, and the importance of sustaining and maintaining these resources for future users. The demand for resources is high, and projected growth in the region will continue to strain the mineral supply.

Background

Mineral Resources

Mineral Resource Zones (MRZ-2s)

Mineral resources are commercially-viable aggregate or mineral deposits, such as sand, gravel, and other construction aggregate. California is the largest consumer of sand and gravel in the country, but is also a major producer, generating approximately one billion dollars-worth of these mineral resources annually. The Los Angeles metropolitan area produces and consumes more construction aggregate than any other metropolitan area in the country. A continuous supply of aggregate materials for urban infrastructure is essential to the Southern California economy.

The County depends on the California Geological Survey to identify deposits of regionally-significant aggregate resources. These clusters or belts of mineral deposits are designated as Mineral Resource Zones (MRZ-2s). Four major MRZ-2s are identified in, or partially within the unincorporated areas and are shown in Table 9.7: Little Rock Creek Fan, Soledad Production Area, Sun Valley Production Area, and Irwindale Production Area. The Soledad and Little Rock Creek MRZ-2s contain significant deposits that are estimated to provide for future needs through the year 2046. However, the Sun Valley MRZ-2 is near depletion, and the Irwindale MRZ-2 is expected to approach depletion in 2017. The County's MRZ-2s are shown in Figure 9.6, the Mineral Resources Map.

Table 9.6: Geologic Inventory of Mineral Resources in Los Angeles County

Production Region	Aggregate Reserves as of 1999	Per Capita Consumption Rates	Estimated Depletion Year
Irwindale Production Area	250 Million Tons	4.0 Tons	2017
Little Rock Creek Fan	250 Million Tons	12.7 Tons	2046
Soledad Production Area	160 Million Tons	9.9 Tons	2046
Sun Valley Production Area	20 Million Tons	2.4 Tons	near depletion

Source: California State Mining and Geology Board, Aggregate Resources in the Los Angeles Metropolitan Area, 1999

Figure 9.6: Mineral Resources Map

Mineral Resource Zone Regulation and Conservation

The California Department of Conservation protects mineral resources to ensure adequate supplies for future production. The California Surface Mining and Reclamation Act of 1975 (SMARA) was adopted to encourage the production and conservation of mineral resources, prevent or minimize adverse effects to the environment, and protect public health and safety. An important component of SMARA requires that all surface mines be reclaimed to a productive second use upon the completion of mining (Public Resources Code, sub-sections 2712 (a), (b), and (c)).

In a joint regulatory effort, SMARA authorizes local governments to assist the State in issuing mining permits and monitoring site reclamation efforts. To manage mining resources, the County has incorporated mineral resource policies into the Conservation and Natural Resources Element. In addition to these policies, Title 22 of the County Code (Part 9 of Chapter 22.56) requires that applicants of surface mining projects submit a reclamation plan prior to receiving a permit to mine, which must describe how the excavated site will ultimately be reclaimed and transformed into another use.

Oil and Natural Gas

Mineral Resources include areas that are appropriate for the drilling for and production of oil and natural gas. Oil production still occurs in many parts of the unincorporated areas, including the Baldwin Hills and the Santa Clarita Valley and is regulated by the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR). DOGGR retains exclusive jurisdiction over all subsurface oil and gas activities in California including well stimulation techniques such as hydraulic fracturing ("fracking"). The County may regulate zoning and land use to mitigate impacts from surface operations on surrounding communities. Jurisdiction for offshore oil and gas production falls to the State Lands Commission and the DOGGR for near-shore facilities on state leases and to the federal government for facilities farther offshore on federal leases. Adherence to the standards for the installation, operation, and abandonment of oil and gas production and storage facilities is important to protect public health and safety.

Energy Resources

Energy in California is produced from a variety of non-renewable and renewable natural resources, including oil, natural gas, and hydrologic, wind, and solar power. Although non-renewable energy resources (oil and natural gas) generate a majority of its energy, California has one of the most diverse portfolios of renewable energy resources in the country. Renewable energy is derived from resources that are regenerative and cannot be depleted, such as wind and solar power. For this reason, renewable energy sources are fundamentally different from fossil fuels, such as coal, oil, and natural gas, which are finite and also produce greenhouse gases and other pollutants. Aside from existing oil and natural gas deposits, California's topography and climate lend themselves to the production of energy from wind, solar, and tidal power. There are significant opportunities for the County to produce energy from renewable sources. Information about solar energy can be found on the County's web site at http://lacounty.solarmap.org.

Issues

1. Development of Mineral Resources

Mineral Resources include existing surface mining activities and known deposits of commercially-viable minerals and aggregate resources, as well as areas suitable for the drilling for and production of energy resources, including crude oil and natural gas. Many issues arise from the incompatible

development of land near Mineral Resources. Mineral resource extraction and production, and activities related to the drilling for and production of oil and gas, can often garner community complaints due to perceived environmental threats and surface operations. The General Plan protects Mineral Resources, as well as the conservation and production of these resources, by encouraging compatible land uses in surrounding and adjacent areas.

It is also important to work with the State Mining and Geology Board and State Geologist in the permitting process, as well as to coordinate with different agencies to address mineral resources within regional efforts. This includes the prioritization of Mineral Land Classifications efforts of MRZ-3 and MRZ-4 lands adjacent to planned new or existing freight routes, or addressing mineral resources in the Sustainable Communities Strategy, per SB 375.

2. Energy Conservation

Energy demand for transportation and non-transportation uses, including gasoline, electricity, heating, and cooling will continue to increase as Los Angeles County grows. Energy consumption patterns demonstrate that residents consume proportionally more energy for transportation than the rest of California. Low-density, automobile-dependent communities place high demands on declining energy resources. The Mobility Element promotes rail, bus, carpool, bicycle, and pedestrian modes of transportation as alternatives to the single-occupant automobile, and the Land Use Element promotes the efficient development and use of land to reduce consumptive land use patterns.

In addition, state and county building codes determine energy efficiency requirements for building construction. Changes to building codes over the years have resulted in substantial improvements in energy efficiency. This has translated into less energy required to light, cool, and heat buildings. In addition, green building techniques, such as the use of passive solar orientation, recycled building materials, improved insulation, energy star appliances, and onsite small-scale renewable energy generation have contributed to energy conservation. The Air Quality Element includes policies on energy conservation and promoting renewable energy to help the County meet its climate change goals.

Goals and Policies for Mineral and Energy Resources

Goal C/NR 10: Locally available mineral resources to meet the needs of construction, transportation, and industry.	
Topic	**Policy**
Mineral Resource Zone Protection	Policy C/NR 10.1: Protect MRZ-2s and access to MRZ-2s from development and discourage incompatible adjacent land uses.
	Policy C/NR 10.2: Prior to permitting a use that threatens the potential to extract minerals in an identified Mineral Resource Zone, the County shall prepare a statement specifying its reasons for permitting the proposed use, and shall forward a copy to the State Geologist and the State Mining and Geology Board for review, in accordance with the Public Resources Code, as applicable.
	Policy C/NR 10.3: Recognize newly identified MRZ-2s within 12 months of transmittal of information by the State Mining and Geology Board.
	Policy C/NR 10.4: Work collaboratively with agencies to identify Mineral Resource Zones and to prioritize mineral land use classifications in regional efforts.
	Policy C/NR 10.5: Manage mineral resources in a manner that effectively plans for access to, development and conservation of, mineral resources for existing and future generations. Policy C/NR 10.6: Require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality.
Goal C/NR 11: Mineral extraction and production activities that are conducted in a manner that minimizes impacts to the environment.	
Topic	**Policy**
Mineral Extraction	Policy C/NR 11.1: Require mineral resource extraction and production activities and drilling for and production of oil and natural gas to comply with County regulations and state requirements, such as SMARA, and DOGGR regulations.
	Policy C/NR 11.2: Require the reclamation of abandoned surface mines to productive second uses.
	Policy C/NR 11.3: Require appropriate levels of remediation for all publicly-owned oil and natural gas production sites based on possible future uses.
	Policy C/NR 11.4: Require that mineral resource extraction and production operations, as well as activities related to the drilling for and production of oil and natural gas, be conducted to protect other natural resources and prevent excessive grading in hillside areas.
	Policy C/NR 11.5: Encourage and support efforts to increase the safety of oil and gas production and processing activities, including state regulations related to well stimulation techniques such as hydraulic fracturing or “fracking.”

Goal C/NR 12: Sustainable management of renewable and non-renewable energy resources.	
Topic	**Policy**
Energy Resources	Policy C/NR 12.1: Encourage the production and use of renewable energy resources.
	Policy C/NR 12.2: Encourage the effective management of energy resources, such as ensuring adequate reserves to meet peak demands.
	Policy C/NR12.3: Encourage distributed systems that use existing infrastructure and reduce environmental impacts.

VII. Scenic Resources

The County recognizes that the coastline, mountain vistas, and other scenic features of the region are a significant resource. This section of the Conservation and Natural Resources Element addresses the preservation of valuable designated scenic areas, vistas, and roadways.

Background

Scenic resources consist of designated scenic highways and corridors (or routes), and hillsides and ridgelines.

State Scenic Highways and Corridors

The State Scenic Highway Program was created in 1963 to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The Los Angeles County Scenic Highway Plan was created to conform to the State Scenic Highway Program. According to state guidelines, a highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

To be designated as an official state scenic highway, the County must create a corridor protection program, which must be adopted by the Board of Supervisors. Each corridor protection program must contain the following five elements related to preserving the nominated scenic highway:

- Regulation of land use and density of development;
- Detailed land and site planning;
- Control of outdoor advertising;
- Careful attention to and control of earthmoving and landscaping; and
- Attention to design and appearance of structures and equipment.

For more information on nominations for official state scenic highway designations, please visit the California Department of Transportation Scenic Highway Program web site at http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm.

The County contains three state scenic highways, as seen in Table 9.7 and Figure 9.7. There may be additional scenic highways that have not been identified and that have importance to local communities. In such cases, a community-based plan may designate these areas.

Table 9.7: State Scenic Highways

Highway	Location
Angeles Crest HighwayRoute-2	From 2.7 miles north of I-210 to the San Bernardino County line.
Mulholland Highway (two sections)	From CA-1 to Kanan Dume Road. From West of Cornell Rd. to East of Las Virgenes Road.

Malibu Canyon–Las Virgenes Highway	From CA-1 to Lost Hills Road

Figure 9.7: Scenic Highways Map

Hillsides, Scenic Viewsheds, and Ridgelines

Other scenic resources in the County include hillsides, scenic viewsheds, and ridgelines.

Hillsides

The San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains and Puente Hills play a major role in physically defining the diverse communities in the unincorporated areas. They not only create dramatic backdrops against densely developed suburbs and communities, but also provide extensive environmental and public benefits to residents.

The vast majority of the native plant and animal species reside within the hilly and mountainous terrain. Mountain lions, bobcats, black bears and deer are among the larger animals that inhabit these areas, and serve as indicators that smaller mammals and vegetation within the food chain are stable. A high number of heritage oak trees that are 100 to 600 years old occur in many of the oak woodlands in the unincorporated areas, which further indicate the biological significance of these areas.

In addition to their scenic beauty, undeveloped mountains and hills serve to protect the overall health of watersheds. They provide natural drainage systems, which play a role in water quality, slope stability, stormwater runoff, erosion control and groundwater replenishment.

Scenic Viewsheds

A scenic viewshed provides a scenic vista from a given location, such as a highway, a park, a hiking trail, river/waterway, or even from a particular neighborhood. The boundaries of a viewshed are defined by the field of view to the nearest ridgeline. Scenic viewsheds vary by location and community and can include ridgelines, unique rock outcroppings, waterfalls, ocean views or various other unusual or scenic landforms.

Ridgelines

There are numerous ridgelines that provide dramatic views for the unincorporated areas. The General Plan supports the protection and preservation of ridgelines, and allows individual communities to identify and regulate their ridgeline resources. As indicated in C/NR Policy 13.10, the following criteria must be considered to identify significant ridgelines:

- Topographic complexity;
- Uniqueness of character and location;
- Presence of cultural or historical landmarks;
- Visual dominance on the skyline or viewshed, such as the height and elevation of a ridgeline; and
- Environmental significance to natural ecosystems, parks, and trail systems.

Figure 9.8 identifies the County's Hillside Management and designated Ridgeline Management Areas.

Figure 9.8: Hillside Management Areas and Ridgeline Management Map

Issues

1. Protection of Scenic Resources

Southern California has lost many of its scenic resources due to a variety of human activities. In the absence of adequate land use controls, many scenic resources have been adversely affected by unsightly development and sprawl. The visual pollution associated with the proliferation of billboards, signs, utility lines, and unsightly uses detracts from and often obscures many of the County's scenic resources. Another factor that significantly affects visual quality is air pollution. Man-made sources of air pollution, particularly tailpipe emissions from cars and trucks, contribute to the reduction of visibility and to the deterioration of some vegetation and wildlife.

2. Hillside Regulation

The geologic instability of mountain ranges is apparent in the numerous earthquake-induced landslide and liquefaction areas in the unincorporated areas. A majority of the mountains and hilly terrain have natural slope gradients of 25 percent or steeper, with a significant portion having natural slope gradients of 50 percent or steeper. Development of steep terrain can be costly and the need to provide public services and safety to these areas are costly to developers and public agencies. The best use for some mountainous terrain may be to let it remain as an airshed, watershed and natural habitat.

In addition, hillside development has the potential to change natural drainage systems and remove the native vegetation that once slowed water runoff. The removal of vegetation eliminates the natural containment of runoff. Water cannot then percolate into the soil, and instead gathers velocity as it flows down the hillside, causing accelerated erosion. Erosion that is accelerated beyond its normal rate can transport silt to streams and lakes, which may adversely affect water quality.

To conserve the natural beauty and public benefit of hillsides, hillside development land use activities that may result in environmental degradation are subject to regulations and design guidelines for impacts affecting, but not limited to, slope, soil erosion, natural drainage channels, and seismic and fire hazards. The Hillside Management Areas Ordinance is a regulatory vehicle to consider potential environmental degradation and hillside alteration in Hillside Management Areas (HMAs), which are areas with a natural slope gradient of 25 percent or steeper.

The HMA Ordinance allows clustering development at the base of the slope, limits grading, and ensures that the drainage configuration remains as natural as possible and will not adversely impact offsite property. Hillside design guidelines are referenced during the pre-development and permit processing phases to minimize hillside alteration, conserve ridgeline silhouettes, determine traffic circulation and building placement by topography, and incorporate trails where appropriate. By imposing these design conditions, a more sensitive development will occur in hillsides in a manner that respects the natural topography and biological resources of the area.

Goals and Policies for Scenic Resources

Goal C/NR 13: Protected visual and scenic resources.	
Topic	**Policy**
Scenic Resource Protection	Policy C/NR 13.1: Protect scenic resources through land use regulations that mitigate development impacts.
	Policy C/NR 13.2: Protect ridgelines from incompatible development that diminishes their scenic value.
	Policy C/NR 13.3: Reduce light trespass, light pollution and other threats to scenic resources.
	Policy C/NR 13.4: Encourage developments to be designed to create a consistent visual relationship with the natural terrain and vegetation.
	Policy C/NR 13.5: Encourage required grading to be compatible with the existing terrain.
	Policy C/NR 13.6: Prohibit outdoor advertising and billboards along scenic routes, corridors, waterways, and other scenic areas.
	Policy C/NR 13.7: Encourage the incorporation of roadside rest stops, vista points, and interpretive displays into projects in scenic areas.
Hillside Management	Policy C/NR 13.8: Manage development in HMAs to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.
	Policy C/NR 13.9: Consider the following in the design of a project that is located within an HMA, to the greatest extent feasible: • Public safety and the protection of hillside resources through the application of safety and conservation design standards; • Maintenance of large contiguous open areas that limit exposure to landslide, liquefaction and fire hazards and protect natural features, such as significant ridgelines, watercourses and SEAs.
	Policy C/NR 13.10: To identify significant ridgelines, the following criteria must be considered: • Topographic complexity; • Uniqueness of character and location; • Presence of cultural or historical landmarks; • Visual dominance on the skyline or viewshed, such as the height and elevation of a ridgeline; and • Environmental significance to natural ecosystems, parks, and trail systems.

VIII. Historic, Cultural, and Paleontological Resources

Historic, cultural, and paleontological resources are an important part of Los Angeles County's identity. This section sets forth goals and policies for the management and preservation of historic, cultural, and paleontological resources in the unincorporated areas.

Background

The resources described in this section include historic buildings, structures, artifacts, sites, and districts of historic, architectural, archaeological, or paleontological significance. They may be locations of important events that were turning points in the history, or be unique structures or groups of structures possessing distinct architectural features that depict a historic period.

Historic, cultural, and paleontological resources are non-renewable and irreplaceable. The County aims to promote public awareness of their value, and their public enjoyment should be fostered whenever possible. To this end, the County promotes cooperative efforts between public and private organizations to identify, restore, and conserve these resources.

Legislative Tools

The County embraces the importance of protecting historic, cultural, and paleontological resources and is guided in development decisions by federal, state, and local programs that officially recognize these resources. The following legislative tools improve the protection and enhancement of historic and cultural structures:

Local

- Los Angeles County Historical Landmarks and Records Commission reviews and recommends cultural heritage resources in the unincorporated areas for inclusion in the State Historic Resources Inventory. The County's Historic Preservation Ordinance seeks to preserve, conserve and protect buildings, objects, landscapes and other artifacts of historical and cultural significance.

State

- The California State Parks Department's Office of Historic Preservation maintains the State Historic Resources Inventory, which is a compilation of all resources formally determined eligible for or listed in the National Register of Historic Places, the California Register of Historical Resources or designated as State Historical Landmarks or Points of Historical Interest.

- CEQA provides guidelines for the identification and protection of archaeological sites, artifacts, and paleontological resources. If a project threatens an archaeological or paleontological resource, the project is required to provide mitigation measures to protect the site or enable study and documentation of the site. Assessment of these resources requires a survey prepared by a qualified archaeologist or paleontologist. For discretionary projects on sites containing Native American resources, CEQA also requires a monitor if warranted.

- The State Historical Building Code (SHBC) is a set of regulations adopted in 1979 that was created to improve the protection and enhancement of historic structures. The intent of SHBC is to protect California's architectural heritage by recognizing the unique construction problems inherent in historic buildings and offering an alternative code to deal with these

problems. The SHBC provides alternative building regulations for the rehabilitation, preservation, restoration, or relocation of structures designated as historic buildings. SHBC regulations are intended to facilitate restoration or accommodate change of occupancy to conserve a historic structure's original or restored architectural elements and features.

Federal

- The Archaeological Resources Protection Act of 1979 protects archaeological resources and provides requirements for permit issuance to excavate or remove archaeological resources.
- The Native American Heritage Act of 1992 provides guidelines for the protection of Native American remains and artifacts.
- The National Register of Historic Places is the official list of the country's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect the country's historic and archeological resources.
- National Historic Landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the U.S. Today, fewer than 2,500 historic places bear this national distinction.

Historic Resource Sites

The State designates historic resources as Historical Landmarks or Points of Historical Interest and lists them in the California Register of Historical Resources. Historical Landmarks are resources of statewide significance, and Points of Historical Interest are resources of local significance. Many of the resources listed in the California Register are also of national significance and are listed in the National Register of Historic Places.

The County has many Historical Landmarks and Points of Historical Interest in its jurisdiction, including the remnants of vast ranchos, routes of early explorers, historic railroad lines, and the homes of prominent people who shaped local history. The State Historical Resources Commission administers the California Register, which lists over 500 historic resources throughout Los Angeles County. While the great majority of these resources are located in cities, 31 are located in the unincorporated areas. Table 9.8 and Figure 9.9 display the location and designation of the 31 historic resources in the unincorporated areas.

Figure 9.9: Historic Resource Sites Policy Map

Table 9.8: Historic Resource Sites in the Unincorporated Areas

Altadena Town & Country Club	Lang Southern Pacific Station	Scripps Hall
Andrew McNally House	Maravilla Handball Court and El Centro Grocery Store	Site of Llano Del Rio Cooperative Colony
Antelope Valley Indian Museum	Mentryville	Soledad-Acton Schoolhouse

Bassett Elementary School	Mount Lowe Railway	St. Francis Dam Disaster Site
Christmas Tree Lane	Oak of the Golden Dream	Sylvia Park Country Club Clubhouse
Clear Creek Vista Point	Old Ridge Route	Topanga Christian Fellowship Church
Crank House	Old Short Cut	Vasquez Rocks
Dominguez Adobe Ranch House	Pacific Electric Railway Company Substation No. 8	Woodbury Story House
General Charles S. Farnsworth County Park	Pico Canyon Oil Field Well No. 4	Zane Grey Estate
Golden Gate Theater	Pomona Water Powerplant	
Keyes Bungalow	Rancho San Francisco	

Archaeological Resources

Archaeological resources refer to any material remains of past human life or activities that are of archaeological interest, including, but not be limited to: pottery, basketry, bottles, weapons, weapon projectiles, tools, structures or portions of structures, pit houses, rock paintings, rock carvings, intaglios, graves, and human skeletal materials.

The indigenous Chumash and Gabrieliño/Tongva peoples, two of the most populous and sophisticated native cultures, have occupied land within Los Angeles County since prehistoric times. Unfortunately, many of the known archaeological, paleontological and historic cultural sites in the region have been disturbed to some extent by both human activity, such as development, occupation, and use, and natural occurrences, such as erosion that results from earthquakes, fire, and flood. In some instances, historic and prehistoric artifacts such as stone tools, antique nails, and equipment parts have been picked up or even destroyed by visitors or residents.

Significant General Fossil Localities

Paleontological resources, or fossils, are the remains of ancient animals and plants, as well as trace fossils such as burrows, which can provide scientifically-significant information on the history of life on Earth.

Over 1,000 fossil localities have been recorded and in excess of a million specimens have been collected in Los Angeles County. Numerous places countywide have yielded fossils, especially in the Santa Monica Mountains and in the vicinity of Rancho La Brea.

Eleven significant general fossil localities have been identified in the County, as shown in Table 9.9. Fossils continue to be discovered in Los Angeles County in association with ground-disturbing activities in fossil-rich areas.

Table 9.9: Significant General Fossil Localities in Los Angeles County

Location	Fossil Type	Formations
La Brea Tar Pits	N/A	N/A
Palos Verdes Peninsula	Mastadon, mammoth, horse, camel, sloth	Palos Verdes Sand
Palos Verdes Peninsula	Grey whale	San Pedro
Palos Verdes Peninsula	Fish, birds, sea lion, plants, baleen whale, horse, sloth, sea otter, mammoth, mastodon, bison, camel, tapir	Monterey Shale
Palos Verdes Peninsula	Dolphin	Monterey Shale
Santa Monica Mountains(Topanga Canyon)	Cypraeid gastropod	Topanga
Santa Monica Mountains (Old Topanga Canyon Road, Piuma Road)	Multiple	Topanga
Mint Canyon	Oldest hawk in California	Tick Canyon
Mint Canyon	Horse, elephant, camel	Mint Canyon
Puente Hills (Hacienda Heights)	Fish	Puente
Puente Hills (Diamond Bar)	Fish and leaves	Puente

Issues

Land Use Compatibility and the Importance of a Local Process

The primary threats historic, cultural, and paleontological resources are incompatible land uses and development on or adjacent to resources, a lack of a local registry, and the limitations of state and federal programs to protect resources.

Incompatible land uses and development can adversely affect resources by degrading the historic nature of the site through incompatible and inappropriate design features, allowing development that blocks views or hinders the public's enjoyment of a particular cultural site, or development that removes or demolishes significant historical features on existing buildings.

Officially-recognized resources are integral parts of the built and natural environments, as well as landscape configuration, and are important considerations in County land use actions. There may be other sites and structures that have not been identified and that have importance to local communities. A community-based plan may serve as an opportunity to comprehensively identify locally significant sites or structures.

Goals and Policies for Historic, Cultural, and Paleontological Resources

Goal C/NR 14: Protected historic, cultural, and paleontological resources.	
Topic	**Policy**
Historic, Cultural, and Paleontological Resource Protection	Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.
	Policy C/NR 14.2: Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.
	Policy C/NR 14.3: Support the preservation and rehabilitation of historic buildings.
	Policy C/NR 14.4: Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).
	Policy C/NR 14.5: Promote public awareness of historic, cultural, and paleontological resources.
	Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

IX. Conservation and Natural Resources Element Implementation Programs

- SEA Preservation Program
- SEA Ordinance
- Mitigation Land Banking Program/Open Space Master Plan
- Oak Woodlands Conservation Management Plan Implementation
- Native Woodlands Conservation Management Plan
- Scenic Resources Ordinance
- Agricultural Resource Areas Ordinance
- Mineral Resource Areas Ordinance
- Habitat Conservation Plan
- Water Quality Initiatives
- Watershed and Rivers Master Plans
- Urban Greening Program
- Open Space Land Acquisition Strategy
- Healthy and Sustainable Food Systems Ordinance
- Solar Energy Orientation Study

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Boxes]

Dark Skies

Regulation of night lighting and providing places where residents can see the stars is a key element in resource conservation. The Rural Outdoor Lighting Districts in the Zoning Code establish regulations that conserve energy and resources and promote dark skies for the enjoyment and health of humans and wildlife, while permitting reasonable uses of outdoor lighting for nighttime safety and security. The Districts include limitations on allowable light trespass, fully shielding outdoor lighting, and imposes maximum heights of fixtures.

Oak Woodlands

As defined by the California Department of Fish and Wildlife, an oak woodland is an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover. Associated with that canopy cover and connectivity are over 300 vertebrate species and more than 5,000 invertebrates, as well as hundreds of native understory plant species. In August 2011, the County adopted Part 1 of the Oak Woodlands Conservation Management Plan through the provision of technical advice from the Fire Department and DRP. As an implementation tool for the Oak Woodlands Conservation Management Plan, the Department of Regional Planning completed and published a Plan Guide on its website in April 2014. The Plan Guide is available at http://planning.lacounty.gov/assets/upl/project/oakwoodlands_conservation-management-plan-guide.pdf.

Low Impact Development (LID)

LID is a stormwater quality management strategy that seeks to mitigate the increase in pollution that enters into storm drains due to the development of urban hardscapes. Urban and storm runoff conveyed through municipal storm drain systems is one of the causes of poor water quality at discharge locations of urban areas. LID seeks to mimic the hydrologic cycle of pre-development conditions by implementing various site designs, materials, and design structures that can slow, infiltrate, filter, store, or detain stormwater runoff close to its source and reduce the amount of runoff. These design techniques may include maintaining recharge areas, buffer zones, open spaces, and drainage courses. LID may also utilize infiltration swales, grading strategies, and open drainage systems to promote the percolation of stormwater at the source location. Although LID practices can reduce the amount of storm runoff, they are not intended as flood protection measures and do not replace traditional flood management practices.

Integrated Regional Water Management Plans (IRWMP's)

Integrated Regional Water Management Plans (IRWMP's) define a clear vision and strategy for the sustainable management of water resources within a specific region delineated by one or more watersheds. IRWMP's generally contain an assessment of current and future water demand, water supply, water quality, and environmental needs. They address the challenges for delivering a stable and clean supply of water for the public, addressing stormwater and urban runoff water quality, providing flood protection, meeting water infrastructure needs, maximizing the use of reclaimed water, enhancing water conservation, and promoting environmental stewardship.

During the planning process, all stakeholders, including water distributors and purveyors, regional waterworks and sanitation districts, local public works departments, environmental organizations, non-profits, and other vested interests work together to develop common goals, objectives, and strategies. Since water related issues are addressed on a regional, watershed basis, these plans are instrumental in building consensus amongst the various stakeholders in the development and prioritization of an action plan that is complementary and leverages inter-jurisdictional cooperation, resources, and available funding. There are four IRWMP regions in Los Angeles County:

- Antelope Valley IRWMP;
- Upper Santa Clara River IRWMP;
- Greater Los Angeles County IRWMP; and
- Los Angeles Gateway Region.

For more information on the IRWMP's, please go to http://www.avwaterplan.org, http://www.scrwaterplan.org, or http://www.lawaterplan.org, respectively.

Sustainable Groundwater Management Act of 2014 (SGMA)

On September 16, 2014, the Governor signed three bills – AB 1739 and Senate Bills 1168 and 1319, collectively referred to as the Sustainable Groundwater Management Act of 2014 (SGMA)– to create a framework for sustainable, local groundwater management. The legislation allows local agencies to tailor sustainable groundwater

plans to their regional economic and environmental needs. The bills establish a definition of sustainable groundwater management and require local agencies to adopt management plans for the state's most important groundwater basins. The legislation prioritizes groundwater basins that are currently overdrafted and sets a timeline for implementation:

- By 2017, local groundwater management agencies must be identified;
- By 2020, overdrafted groundwater basins must have sustainability plans;
- By 2022, other high and medium priority basins not currently in overdraft must have sustainability plans; and
- By 2040, all high and medium priority groundwater basins must achieve sustainability.

Additionally, the legislation provides measurable objectives and milestones to reach sustainability and a state role of limited intervention when local agencies fail to adopt sustainable management plans. Local water agencies and the County will work together to ensure compliance with this legislation.

Hydromodification

Hydromodification is one of the leading sources of impairment in streams, lakes, estuaries, aquifers, and other water bodies in the country. Three major types of hydromodification activities—channelization and channel modification, dams, and stream bank and shoreline erosion—change a water body's physical structure as well as its natural function. These changes can cause problems, such as changes in flow, increased sedimentation, higher water temperature, lower dissolved oxygen, degradation of aquatic habitat structure, loss of fish and other aquatic populations, and decreased water quality. It is important to properly manage hydromodification activities to reduce non-point source pollution in surface and groundwater.

Sustainable Food Systems: Organic Farming, Urban Farming, and Community Gardens

Sustainable agriculture refers to the production of food without the depletion of the Earth's resources or polluting of the environment. Sustainable agriculture addresses the social, economic, and environmental effects of farming. For more information on organic farming practices, please visit the National Sustainable Agriculture Information Service web site at http://www.attra.org.

Organic farming is a form of agricultural production that avoids or largely excludes the use of synthetic fertilizers, pesticides, herbicides, plant growth regulators and livestock feed additives. Organic farmers use crop rotation, crop residues, animal manures, other beneficial organisms, and mechanical cultivation to maintain soil productivity and control pests. Organic farming is considered environmentally responsible in that the exclusion of chemicals prevents the spread of these toxins into the air, water, soil, and food stuffs. There are an estimated 75 million acres of organic farmland in the world. In the U.S., "organic" foods must be certified by the U.S. Department of Agriculture. Any food that claims it is organic or organically produced must attain this certification. In Los Angeles County, there is a limited amount of organic farming, reaching only 111 acres in 2006.

Urban farming refers to the practice of cultivating, processing and distributing food in, or around a village, town or city. Urban farming can be practiced as a food producing activity, for income, and in some cases simply for recreation. However, urban farming contributes to food security and food safety in two ways: it increases the amount of food available to people living in cities; and, it allows fresh vegetables and fruits and meat products to be made available to urban consumers. Because urban farming promotes local food production and distribution, urban farming activities are generally seen as sustainable practices. For more information on urban farming, please visit http://www.urbanfarming.org.

The American Community Garden Association allows a broad definition of what a community garden entails. Community gardens have been shown to provide a catalyst for neighborhood and community development, beautify neighborhoods, preserve or create urban green space, and create income opportunities and economic development. For more information on community gardens, please visit http://www.communitygarden.org/.

Senate Bill (SB) 18

Senate Bill 18 (2004) requires California cities and counties to contact and consult with California Native American tribes prior to amending or adopting a general plan or specific plan, or designating land as open space. SB 18

requires city and county governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places through local land use planning. SB 18 provides California Native American tribes an opportunity to participate in local land use decisions at an early stage in the planning process for the purpose of protecting, or mitigating, impacts to sites of cultural significance. Involving tribes early allows for ample consideration of cultural places in the context of broad local land use policy, before individual site specific, project level land use decisions are made by a local government.

Chapter 10: Parks and Recreation Element

I. Introduction

The parks and recreational facilities of Los Angeles County play a vital role in maintaining a high quality of life for residents. The County owns and operates parks and recreational facilities in both unincorporated areas and cities in Los Angeles County. These facilities serve the local needs of communities in the unincorporated areas, as well as regional needs countywide.

The Parks and Recreation Element provides policy direction for the maintenance and expansion of the County's parks and recreation system. The purpose of the Parks and Recreation Element is to plan and provide for an integrated parks and recreation system that meets the needs of residents. The goals and policies set forth in this Element address the growing and diverse recreation needs of the communities served by the County.

II. Parkland Classifications

For planning purposes, parks are classified based on the size, use, and physical characteristics of the land. In addition, the traditional template of local and regional parks has been expanded to capture diverse opportunities for acquisition and development of parkland. The County's park system, including facilities that are owned, operated, and maintained by the County, totals approximately 70,000 acres. Table 10.1 summarizes the acreage of local and regional parkland, by Planning Area. A complete inventory of the parks operated by DPR can be found in Appendix F.

Table 10.1: Existing County Parkland, by Planning Area

	Parkland, in Acres		
Planning Area	**Local**	**Regional**	**Total**
Antelope Valley	50	3,870	3,920
Coastal Islands	0	41,000	41,000
East San Gabriel Valley	220	3,440	3,660
Gateway	51	816	867
Metro	111	398	509
Santa Clarita Valley	71	14,425	14,497
San Fernando Valley	1	565	566
Santa Monica Mountains	0	0	0
South Bay	26	593	618

West San Gabriel Valley	56	3,465	3,521
Westside	22	414	436
Total	608	68,986	69,594

Source: Los Angeles County Department of Parks and Recreation, July2013.

The County offers a wide variety of parks and recreation resources, which generally fall under two systems: local park system and regional park system.

Local Park System

The local park system consists of parks of varying sizes that meet local needs and offer opportunities for daily recreation. This system includes community parks, neighborhood parks, pocket parks, and park nodes, and is summarized in Table 10.2.

Community Parks

Community parks are typically 10 to 20 acres, and serve several neighborhoods within a 1 to 2 mile radius of the park. Community parks that are located in residential neighborhoods serve both the needs of the community park service radius and neighborhood park service radius. Community parks provide opportunities for a wide variety of active and passive recreation activities. The amenities programmed into a community park are focused on meeting the needs of several neighborhoods or large sections of the community. They allow for group activities and recreational opportunities that may not be feasible in neighborhood parks. Amenities for community parks can include informal open play areas, children's play apparatus, group picnic areas with overhead shelters, barbecues, lighted sports fields, basketball courts and tennis courts, public restrooms, concession buildings, maintenance buildings, onsite parking and information kiosks.

Neighborhood Parks

Neighborhood parks are typically 3 to 10 acres, and serve residents living within a half mile radius of the park. Neighborhood parks provide space, programs and recreation activities to create healthy social networks within residential communities. The common objective of all neighborhood parks is to bring people together to recreate and socialize close to home. Ease of access and walking distance uninterrupted by major roads and other physical barriers are important factors in locating neighborhood parks. Neighborhood parks should be well-connected to other public facilities, such as schools and libraries. Amenities for neighborhood parks can include informal open play areas, children's play apparatus, picnic tables, picnic shelters, barbecues, practice sports fields, basketball, tennis and volleyball courts, public restrooms, information kiosks, recreation offices, and onsite parking.

Pocket Parks

Pocket parks are less than three acres in size, and serve residential or business areas within a quarter mile radius or within walking distance. They are best used to meet limited or specialized recreational needs. Pocket parks can provide landscaped public use areas in industrial and commercial areas, scenic overlooks, linkage to a community pathway system, and urban infill sites in park poor communities. Pocket parks generally do not have onsite parking. Amenities for pocket parks can include both active and passive features, depending on the community's setting and

needs, such as children's play apparatus, picnic areas, fountains and seating areas. Due to the limited amenities included in pocket parks, they are typically not included in the service radius analysis.

Park Nodes

Park nodes are small pieces of open space that serve as public destinations, connections, and community defining spaces. Nodes provide physical and visual breaks to the urban landscape and connect various spaces, such as waterways, streets, trails, and greenways. Park nodes are used as gathering and rest areas, and serve as opportunities for social and cultural exchange. Examples of park nodes include equestrian and hiking trail heads, bike rest stops and stations with lockers and repair areas, neighborhood focal points, and passive amenities, such as plazas, rest areas, playgrounds, landmarks, and public art installations.

Table 10.2: Local Park System Summary

Facility	Typical Park Features and Amenities
Community Park Acres Per Thousand Population: 4/1,000 Suggested Acreage: 10 to 20 acres Service Area: 1 to 2 miles	Passive park amenities including but not limited to: informal open play areas, children's play apparatus, family and group picnic areas with overhead shelters, barbecues. Active sports activities including but not limited to: lighted sports fields, basketball courts and tennis courts. Additional amenities may include aquatics complex, skate park, arena soccer, roller hockey, community gardens, and dog parks. Park facilities including but not limited to: public restrooms, concession building, community buildings, maintenance building and onsite parking and information kiosks.
Neighborhood Park Acres Per Thousand Population: 4/1,000 Suggested Acreage: 3 to 10 acres Service Area: 1/2 mile	Passive park amenities including but not limited to: informal open play areas, children's play apparatus, group picnic areas with overhead shelters, barbecues. Active park amenities including but not limited to: practice sports fields, basketball, tennis, and volleyball courts. Park facilities including but not limited to: public restroom, onsite parking and information kiosks.
Pocket Park Acres Per Thousand Population: 4/1,000 Suggested Acreage: less than 3 acres Service Area: 1/4 mile	Passive park amenities including but not limited to: picnic areas and seating areas. Active park amenities including but not limited to: children's play apparatus.

Park Node Acres Per Thousand Population: 4/1,000 Suggested Acreage: 1/4 acre or less No service radius area	Varies; can include: plazas, rest areas, playgrounds, landmarks and public art installations

Regional Park System

The regional park system is intended to meet the park and recreation needs of residents and visitors throughout Los Angeles County. This system consists of community regional parks, regional parks, and special use facilities, and is summarized in Table 10.3.

Community Regional Parks

Community regional parks are typically 20 to 100 acres, and have a service radius of 20 miles. Community regional parks protect and conserve natural resources, preserve open spaces, and provide recreational facilities that are not available in neighborhood or community parks. Amenities for community regional parks can include a jogging exercise course, informal open play areas, children's play apparatus, group picnic areas with overhead shelters, barbecues, lighted sports fields, basketball courts and tennis courts, information kiosks, public restrooms, concession building, recreation offices, maintenance buildings, and onsite parking. Community regional parks may also have one or more of the following features: multiple sports facilities, aquatics center, fishing lake, community building and gymnasium, and scenic views and vistas.

Regional Parks

Regional parks are typically greater than 100 acres in size, and have a service radius of 25 miles or more. They include unique areas such as lakes, wetlands, auditoriums, water bodies, and campgrounds, in addition to the active recreational facilities offered in community and community regional parks. Many of the recreation activities are associated with experiencing the natural environment. A regional park may also perform important ecological and environmental functions, including serving as wildlife habitats. The connection of these parks to natural areas is often vital to ensuring a healthy ecological system. Amenities for regional parks can include picnic areas, nature centers, trail systems, scenic drives, campgrounds, water areas for swimming, fishing and boating, and in some cases, sport fields.

Special Use Facilities

Special use facilities are generally single purpose facilities that serve greater regional recreational or cultural needs. One notable example is the Hollywood Bowl. Special use facilities require adequate public access and sufficient buffers to protect adjacent residential users and to insulate the park from commercial or industrial development. Special use facilities can meet both passive (e.g., historic and cultural facilities, natural areas, habitat preservation areas, arboreta and botanical gardens, and nature centers) and active (e.g., golf courses and driving ranges, equestrian centers, off-highway vehicle parks, water parks) needs within the region. There are no size criteria or service radius areas associated with special use facilities.

Table 10.3: Regional Park System Summary

Facility	Typical Park Features and Amenities
Community Regional Park Acres Per Thousand Population: 6/1,000 Suggested Acreage: 20 to100 acres Service Area: up to 20 miles	Passive park amenities including but not limited to: informal open play areas, children's play apparatus, group picnic areas with overhead shelters, barbecues. Active sports activities including but not limited to: lighted sports fields, basketball courts and tennis courts. Additional amenities may include one or more of the following features: multiple sports facilities, aquatics center, fishing lake, community building and gymnasium, and scenic views and vistas. Park facilities including but not limited to: public restrooms, concession building, community buildings, maintenance building and onsite parking and information kiosks.
Regional Park Acres Per Thousand Population: 6/1,000 Suggested Acreage: greater than 100 acres Service Area: 25+ miles	Passive park amenities including but not limited to: group picnic areas with overhead shelters, barbecues. Additional amenities may include one or more of the following features: lakes, wetlands, auditoriums, water bodies for swimming, fishing and boating, and sports fields.
Special Use Facility Acres Per Thousand Population: 6/1,000 No size criteria No assigned service radius area	Generally, single purpose facilities. Can include passive features such as: wilderness parks, nature preserves, botanical gardens and nature centers. Active uses can include: performing arts, water parks, golf driving ranges and golf courses.

Trails

The County offers unique trail user opportunities that showcase its diverse scenery and provide connectivity to parks, open spaces, cultural resources, and wilderness areas. Los Angeles County has an ideal climate for trail user activities on most days of the year.

Typical trail uses range from hiking and walking, to mountain biking and horseback riding, with many users participating in more than one activity. The quality of the trail experience is directly proportional to the state of the visual, natural, and educational environment through which the trail passes. The wide variety of experiences, include but are not limited to: exercise, solitude, spiritual practices, physical and mental well-being, building social networks, testing athletic skills, and experiencing nature. The County strives to make all trails multi-use and accessible to all non-motorized users including pedestrians, equestrians, and mountain bicyclists, where appropriate.

In May 2011, the Board of Supervisors adopted the County of Los Angeles Trails Manual, which provides County staff and developers with guidelines and standards for trail planning, design, development, and maintenance of County trails. The purpose of the Trails Manual is to provide guidance to County departments that interface with trail planning, design, development and

maintenance of hiking, equestrian, and mountain biking recreational trails, while addressing physical and social constraints and opportunities associated with the diverse topographic and social conditions that occur in the unincorporated areas.

Figure 10.1 depicts the County's regional trail system.

Figure 10.1: Regional Trail System Map

Other Recreation Facilities

In addition to local and regional parks and trails, residents are served by the following types of recreation facilities: multi-benefit parks, school sites, city parks and facilities, private recreational facilities, and greenways.

Multi-Benefit Parks

Multi-benefit parks and open spaces are created through collaborative efforts among city, county, state, and federal agencies; private organizations; schools; private landowners; and industries. These parks are characterized as having more than one function and contributing to multiple program goals. There are a number of applications of multi-benefit parks including: utility corridors and flood protection basins that can serve as areas for active or passive recreation; school sites located adjacent to parks that can share facilities, such as parking and park amenities; watershed areas that can protect critical wildlife habitats, preserve open space, provide trails for recreation, and contribute to water conservation objectives; and water districts, where trails can be located adjacent to flood protection channels and trailhead parks.

School Sites

The County works with school districts to organize, promote, and conduct joint recreational and educational programs. These community recreation agreements are a form of joint-use agreement, where either a school or park facility may be put to some recreational use by the other party in exchange for some facility improvement and/or maintenance. A park does not have to be adjacent to a school (i.e., share a common boundary) for an agreement to be viable.

City Parks and Facilities

City parks and facilities that are located close to the borders of the unincorporated areas are enjoyed by city and County residents alike. Similarly, local County parks that are located within or close to the borders of cities provide recreational amenities for both populations. This overlap in local park service radius is an important factor to consider in the placement of new local County parks.

Private Recreational Facilities

Private recreational facilities play an important role in meeting recreational needs. The network of private recreational facilities consists of churches, health and fitness clubs, and other organizations that offer a variety of programs and facilities. This Element does not include an inventory of private recreational facilities, and as the County does not control, maintain, or program private recreational facilities, these resources are not credited toward the County's acreage goals for public parks.

Greenways

Greenways provide a linear area along natural corridors, and often follow features such as rivers, man-made waterways, drainage channels, and utility easements. Greenways can accommodate various modes of uninterrupted pedestrian travel on pathways, including walking, jogging, and bicycling, and can include recreation areas and natural landscape features.

Recreation Programs

Along with access to parks and recreation facilities, the availability of a wide range of recreation programs is critical to the quality of life in any community. A comprehensive offering of effective recreation programs benefit individuals, neighborhoods, and households of all ages, income levels, cultures and abilities by:

- Offering opportunities to play, grow, and learn;
- Providing a sense of place and of belonging;
- Promoting health and wellness, including obesity prevention;
- Improving neighborhood and community connections, and problem-solving;
- Enhancing community cohesiveness while honoring diversity;
- Helping protect natural environments; and
- Providing positive youth development opportunities.

Recreation programs can range from organized sports, tournaments, scheduled classes, and special events, to more individualized, casual leisure activities such as picnics and walking. Effective recreation programs promote the constructive use of leisure time and a lifelong commitment to a healthy lifestyle.

DPR offers a wide variety of recreation programs to meet the diverse needs of residents. These programs serve a diverse group of stakeholders including, but not limited to: preschool-aged children, elementary school-aged youth, middle school-aged youth, high school-aged youth, adults, seniors and households.

Parkland Dedication and Funding

As specified in P/R Policy 3.1, the County standard for the provision of parkland is 4 acres of local parkland per 1,000 residents of the population in the unincorporated areas, and 6 acres of regional parkland per 1,000 residents of the total population of Los Angeles County. This section describes the County's parkland dedication requirements, as well as funding mechanisms for the planning and development of parks and recreation facilities.

Quimby Act

The California Quimby Act, which is part of the Subdivision Map Act, applies to residential subdivisions and permits the County, by ordinance, to require the dedication of land or payment of fees for park and recreational purposes. As part of its approval of a subdivision, the County may

require the subdivider to provide land to serve the park and recreational needs of future residents of the subdivision.

The Quimby Act establishes a standard of dedicating 3 acres of parkland per 1,000 residents for subdivisions. Quimby fees may be used to acquire land for local park purposes, improve local parkland (including existing local parks), or both acquire and develop local parkland. To convert a Quimby obligation inland (acres) into the Quimby fee, the land obligation is multiplied by the Representative Land Value (RLV) per acre for the Park Planning Area (PPA) in which the subdivision is located. RLVs are adjusted annually based upon changes in the Consumer Price Index.

Because of the need for usable public parkland for active recreation purposes, DPR rarely gives any Quimby credit for parkland exceeding a slope of three percent and instead gives credit for the “net” park acreage (maximum slope of three percent) the County receives. As specified in P/R Policy 3.10, DPR does not accept undeveloped park sites from developers. This means that the developer is required to provide a developed park to the County on a “turn-key” basis and receives credit for the costs of developing the public park up to and against any remaining Quimby obligation, after accounting for the net acreage dedicated to the County.

For the purposes of the County's Quimby Act Ordinance, the unincorporated areas are divided into 47 PPAs, based on location and neighborhood characteristics. The Quimby fees generated in one PPA may not be spent in another area.

Proposition A Funds

Proposition A Funds may be used to fund the development, acquisition, improvement, restoration and maintenance of parks; recreational, cultural and community facilities; and open space lands. These funds are administered by the Los Angeles County Regional Park and Open Space District. The Open Space District was created when voters approved Proposition A in 1992. Proposition A authorized an annual assessment on nearly all of the 2.25 million parcels of real property. Proposition A funded $540 million for the acquisition, restoration or rehabilitation of real property for parks and park safety, senior recreation facilities, gang prevention, beaches, recreation, community or cultural facilities, trails, wildlife habitats, or natural lands, and maintenance and servicing of those projects. In 1996, voters approved another Proposition A to fund an additional $319 million for parks and recreation projects and additional funds for maintenance and to service those projects.

Landscaping and Lighting Districts

The California Landscaping and Lighting Act of 1972 authorizes local legislative bodies to establish benefit related assessment districts, or Landscaping and Lighting Districts (LLADs), and to levy assessments for the construction, installation, and maintenance of certain public landscaping and lighting improvements. LLADs may be established to maintain local public parks.

Mello-Roos District

A developer may apply to the County to form a Mello-Roos District pursuant to the California Mello-Roos Community Facilities Act of 1982 to develop and maintain park improvements. Pursuant to County guidelines, the parks should be regional in nature, and have an impact or benefit beyond the associated subdivision.

III. Issues

1. Park Planning For a Diversity of Needs

Parks and recreation facilities are used for various purposes by a wide range of users. Because the needs of park users are diverse, no individual park or recreational facility can meet the needs of all users. Therefore, a diverse and comprehensive system of facilities is needed to provide a wide range of recreational opportunities.

A mistaken assumption is that parks and recreation planning only involves looking at population projections and then providing more of what already exists. Numerous studies have shown that parks and recreation needs and preferences vary by age, race and ethnicity, and other factors. In addition, the physical distribution of parkland and park accessibility by underrepresented groups and underserved populations, including low-income and transit-dependent communities, are important considerations. The County must understand and plan for these diverse park and recreation needs.

Based on data from a wide variety of sources, outdoor recreation activities with learning components, trail related experiences, and water recreation will increase. Motorized recreation, augmented with navigational equipment, will also continue to grow. As the population evolves and changes, there will be many new supporters and advocates for outdoor recreation and opportunities for partners to contribute to a better quality of life. Cooperation and partnerships between public, private, and nongovernmental service providers can ensure a seamless and comprehensive system of outdoor recreation opportunities and experiences.

Enhanced collaboration refers to the idea of providing more and improved park and recreation services through multiple use facilities and partnerships with other public, non-profit, and private organizations. The County must work with other agencies to leverage financial, land, and other resources to meet the growing and diverse recreation needs of residents.

2. Acquisition and Development of Additional Parkland

There are large areas that are underserved by parks and recreational facilities. Nearly two out of three children do not live within walking distance (one quarter mile) of a park, playground, or open space.

DPR conducted a preliminary gap analysis to determine the need for additional parks and to identify park poor areas. Using the County's goals for 4 acres of local parkland per 1,000 residents in the unincorporated areas, and 6 acres of regional parkland per 1,000 residents, the Gap Analysis Study shows that the unincorporated areas face a significant deficit in local parkland: 3,719 acres, as shown in Table 10.4.. Also noteworthy is the fact that 9 of the 11 Planning Areas have deficits in regional parkland. Based on population projections, the unincorporated areas would have deficits of 5,987 acres in local parkland and 5,046 acres in regional parkland by the year 2035 if no new parks are created.

The Gap Analysis Study represents a first step toward identifying park-deficient neighborhoods in the unincorporated areas. Figures 10.2 and 10.3 show the service radius for local and regional parks. Areas that do not lie within the service radius are considered underserved by parks and recreation facilities.

Figure 10.2: Community Regional and Regional Park Service Radius Map

Figure 10.3: Community, Neighborhood and Pocket Park Service Radius Map

Table 10.4: Existing County Parkland by Planning Area, Year 2010

	Local Parkland Goal 4 Acres / 1,000 Population			**Regional Parkland Goal 6 Acres / 1,000 Population**		
Planning Areas	**Unincorporated Population 2010**	**Parkland Acreage**	**Surplus / Deficit Acreage**	**Countywide Population 2010**	**Parkland Acreage**	**Surplus / Deficit Acreage**
Antelope Valley	73,488	50	-244	382,868	3,870	1,573
Coastal Islands	368	0	-1	4,096	41,000	40,975
East San Gabriel Valley	234,251	220	-717	933,116	3,440	-2,159
Gateway	103,094	51	-361	1,666,588	816	-9,183
Metro	306,768	111	-1,116	1,819,084	398	-10,517
Santa Clarita Valley	94,907	71	-308	271,227	14,425	12,798
San Fernando Valley	5,137	1	-20	1,749,325	565	-9,931
Santa Monica Mountains	19,222	0	-77	85,785	0	-515
South Bay	69,612	26	-253	1,016,674	593	-5,507
West San Gabriel Valley	122,834	56	-435	915,196	3,465	-2,026
Westside	27,407	22	-87	974,646	414	-5,434

Total	**1,057,088**	**608**	**-3,719**	**9,818,605**	**68,986**	**-6,522**

Sources: 2010 U.S. Census and Los Angeles County Department of Parks and Recreation, July 2013.

Table 10.5: Projected Future County Parkland Need, Year 2035

	Local Parkland Goal 4 Acres / 1,000 Population			**Regional Parkland Goal 6 Acres / 1,000 Population**		
	Unincorporated Population Projection 2035	**Current Local Parkland Acreage**	**Surplus / Deficit Acreage**	**Countywide Population Projection 2035**	**Current Regional Parkland Acreage**	**Surplus / Deficit Acreage**
Total	1,648,695	608	-5,987	12,338,623	68,986	-5,046

Source: 2008 SCAG RTP and Los Angeles County Department of Parks and Recreation, July 2013.

A good community parks and recreation system is based on the quality of facilities and services provided, as well as the ability to anticipate and respond to changing trends. According to the report, *Park and Recreation Trends in California 2005*, changes in the size and composition of State's population will drive the impacts on the delivery of parks and recreation services in the future.

A more in-depth gap analysis will be conducted as part of the County's future Parks and Recreation Master Plan. This analysis will involve a detailed review of topics such as demographic, geographic, land use, and transportation data for each Planning Area to determine its park deficiencies in terms of acreage, accessibility, and suitability. For more information on the Parks and Recreation Master Plan, please refer to Chapter 16: General Plan Implementation Programs.

3. Improved Trail Systems

Trails offer opportunities for people to hike, walk, run or ride, and encourage people to connect with nature. As linear parks, trails help make the region more livable and provide communities with access to increased health and fitness activities. Trails can also promote increased activity with smaller amounts of land than large parks, and can often use leftover or unwanted land.

As the population continues to grow and the region becomes increasingly urbanized, the demand for outdoor recreation opportunities and trails will increase. One way to meet this demand is to create and maintain an adequate multi-use trail system that is accessible to all residents and to provide continuous enjoyment though increased and expanded connectivity. Additional trails are also needed closer to population centers in the central and southwestern portions of Los Angeles County, where more residents could conveniently access and reap the recreation, health, and mobility benefits of trails.

Multi-use trails are used by equestrians, cyclists, hikers, and runners. As the amount of public land continues to decrease, the need for multi-use trails will continue to grow, as well as the need to find solutions to possible user conflicts. An expanded multi-use trial system can alleviate user conflicts, while also providing increased access to this important health and fitness system.

4. Protection of Historical and Natural Resources on County Park Properties

Many County parks contain important historical and natural resources that must be protected. Historic resources on County park properties include buildings, collections, landscapes, bridges, and other physical features. The maintenance, repair, rehabilitation, restoration, or reconstruction of historical resources are carried out in a manner that is consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.

Natural resources include natural areas, sanctuaries, and open space preserves. There is a need to establish linkages that will promote connectivity to enhance the movement of wildlife and promote genetic health among native species of plants and animals. Continuous efforts to expand the regional park system are necessary to protect and conserve natural resources regardless of the required park acreage based upon park standards. Open space areas that are established for conservation purposes, such as wildlife sanctuaries, provide a greater benefit than the relative location of the site to populated areas. In the regional park system, a key consideration is the ecological health of natural environments. Accessibility to regional facilities is also important. Access may be enhanced by providing improved public transportation to connect population centers with regional parks.

Threats to these resources include both intentional and unintentional acts, such as deferred maintenance, renovation or improvements that significantly alter or damage the resource, acts of vandalism and theft, or overuse by park users.

5. Sustainable Parks

It is important for County park properties to contribute to the County's goals of sustainability, carbon footprint reduction, water conservation, and energy conservation. Sustainable design and management are necessary to promote responsible environmental practices, enhance social benefits, and reduce the cost of ownership and management.

All park projects must be considered within their surrounding context. Landscapes need to be treated as interdependent and interconnected spaces that share systems of soil, topography, vegetation, and water. By understanding these larger patterns and employing a comprehensive approach, parks can be designed in a way that helps repair and restore ecosystems rather than detract from them. For example, designing a park to take advantage of natural processes is one way to achieve sustainability through site design.

Funding is the main challenge facing the design and implementation of sustainable strategies. However, sustainable design and management practices will help reduce operation and maintenance costs in the long run. In addition, regular maintenance and preventative measures can prolong the life of existing buildings and facilities on County park properties, and reduce the need for new or expanded facilities.

IV. Goals and Policies

Goal P/R 1: Enhanced active and passive park and recreation opportunities for all users.	
Topic	**Policy**
Park Programming	Policy P/R 1.1: Provide opportunities for public participation in designing and planning parks and recreation programs.

	Policy P/R 1.2: Provide additional active and passive recreation opportunities based on a community's setting, and recreational needs and preferences.
	Policy P/R 1.3: Consider emerging trends in parks and recreation when planning for new parks and recreation programs.
	Policy P/R 1.4: Promote efficiency by building on existing recreation programs.
Park Management	Policy P/R 1.5: Ensure that County parks and recreational facilities are clean, safe, inviting, usable and accessible.
	Policy P/R 1.6: Improve existing parks with needed amenities and address deficiencies identified through the park facility inventories.
	Policy P/R 1.7: Ensure adequate staffing, funding, and other resources to maintain satisfactory service levels at all County parks and recreational facilities.
	Policy P/R 1.8: Enhance existing parks to offer balanced passive and active recreation opportunities through more efficient use of space and the addition of new amenities.
	Policy P/R 1.9: Offer more lighted playing fields using energy efficient light fixtures to extend playing time, where appropriate (eg., not in areas adjacent to open space or natural areas that can be impacted by spillover lighting).
	Policy P/R 1.10: Ensure a balance of passive and recreational activities in the development of new park facilities.
	Policy P/R 1.11: Provide access to parks by creating pedestrian and bicycle-friendly paths and signage regarding park locations and distances.
Goal P/R 2: Enhanced multi-agency collaboration to leverage resources.	
Topic	**Policy**
Collaboration and Financing	Policy P/R 2.1: Develop joint-use agreements with other public agencies to expand recreation services.
	Policy P/R 2.2: Establish new revenue generating mechanisms to leverage County resources to enhance existing recreational facilities and programs.
	Policy P/R 2.3: Build multi-agency collaborations with schools, libraries, non-profit, private, and other public organizations to leverage capital and operational resources.
	Policy P/R 2.4: Utilize school and library facilities for County sponsored and community sponsored recreational programs and activities.
	Policy P/R 2.5: Support the development of multi-benefit parks and open spaces through collaborative efforts among entities such as cities, the County, state, and federal agencies, private groups, schools, private landowners, and other organizations.
	Policy P/R 2.6: Participate in joint powers authorities (JPAs) to develop multi-benefit parks as well as regional recreational facilities.

	Policy P/R 2.7: Increase communication and partnerships with local law enforcement, neighborhood watch groups, and public agencies to improve safety in parks.
Mass Care and Shelters	Policy P/R 2.8: Evaluate and enhance facilities and amenities with respect to alternative use of parks to carry out Mass Care and Shelter operations in the wake of a disaster.
Goal P/R 3: Acquisition and development of additional parkland.	
Topic	**Policy**
Parkland Acquisition and Dedication	Policy P/R 3.1: Acquire and develop local and regional parkland to meet the following County goals: 4 acres of local parkland per 1,000 residents in the unincorporated areas and 6 acres of regional parkland per 1,000 residents of the total population of Los Angeles County.
	Policy P/R 3.2: For projects that require zone change approvals, general plan amendments, specific plans, or development agreements, work with developers to provide for local and regional parkland above and beyond their Quimby obligations.
	Policy P/R 3.3: Provide additional parks in communities with insufficient local parkland as identified through the gap analysis.
	Policy P/R 3.4: Expand the supply of regional parks by acquiring land that would: 1) provide a buffer from potential threats that would diminish the quality of the recreational experience; 2) protect watersheds; and 3) offer linkages that enhance wildlife movements and biodiversity.
	Policy P/R 3.5: Collaborate with other public, non-profit, and private organizations to acquire land for parks.
	Policy P/R 3.6: Pursue a variety of opportunities to secure property for parks and recreational facilities, including purchase, grant funding, private donation, easements, surplus public lands for park use, and dedication of private land as part of the development review process.
Parkland Development	Policy P/R 3.7: Mitigate impacts from freeways to new parks to the extent feasible.
	Policy P/R 3.8: Site new parks near schools, libraries, senior centers and other community facilities where possible.
	Policy P/R 3.9: The Department of Parks and Recreation does not accept undeveloped park sites from developers. Developers are required to provide a developed park to the County on a “turn-key” basis and receive credit for the costs of developing the public park up to and against any remaining Quimby obligation, after accounting for the net acreage dedicated to the County.
Goal P/R 4: Improved accessibility and connectivity to a comprehensive trail system including rivers, greenways, and community linkages.	
Topic	**Policy**
Trail System	Policy P/R 4.1: Create multi-use trails to accommodate all users.
	Policy P/R 4.2: Develop staging areas and trail heads at strategic locations to accommodate multi-use trail users.

	Policy P/R 4.3: Develop a network of feeder trails into regional trails.
	Policy P/R 4.4: Maintain and design multi-purpose trails in ways that minimize circulation conflicts among trail users.
	Policy P/R 4.5: Collaborate with other public, non-profit, and private organizations in the development of a comprehensive trail system.
	Policy P/R 4.6: Create new multi-use trails that link community destinations including parks, schools and libraries.
Goal P/R 5: Protection of historical and natural resources on County park properties.	
Topic	**Policy**
Park Resource Preservation	Policy P/R 5.1: Preserve historic resources on County park properties, including buildings, collections, landscapes, bridges, and other physical features.
	Policy P/R 5.2: Expand the collection of historical resources under the jurisdiction of the County, where appropriate.
	Policy P/R 5.3: Protect and conserve natural resources on County park properties, including natural areas, sanctuaries, and open space preserves.
	Policy P/R 5.4: Ensure maintenance, repair, rehabilitation, restoration, or reconstruction of historical resources in County parks and recreational facilities are carried out in a manner consistent with the most current Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.
Education and Programming	Policy P/R 5.5: Preserve and develop facilities that serve as educational resources that improve community understanding of and appreciation for natural areas, including watersheds.
	Policy P/R 5.6: Promote the use of County parks and recreational facilities for educational purposes, including a variety of classes and after school programs.
	Policy P/R 5.7: Integrate a range of cultural arts programs into existing activities, and partner with multicultural vendors and organizations.
Goal P/R 6: A sustainable parks and recreation system.	
Topic	**Policy**
Sustainable Parks System	Policy P/R 6.1: Support the use of recycled water for landscape irrigation in County parks.
	Policy P/R 6.2: Support the use of alternative sources of energy, such as wind and solar sources to reduce the use of energy at existing parks.
	Policy P/R 6.3: Prolong the life of existing buildings and facilities on County park properties through preventative maintenance programs and procedures.

	Policy P/R 6.4: Ensure that new buildings on County park properties are environmentally sustainable by reducing carbon footprints, and conserving water and energy.
	Policy P/R 6.5: Ensure the routine maintenance and operations of County parks and recreational facilities to optimize water and energy conservation.

V. Park and Recreation Element Implementation Program

- County Parks and Recreation Master Plan
- Trails Program
- Parks Sustainability Program

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Boxes]

Parks, Playgrounds, and Beaches in the Los Angeles Region (1930)

The Olmsted Brothers and Bartholomew report entitled *Parks, Playgrounds, and Beaches in the Los Angeles Region* was the first comprehensive parks and open space plan for the greater Los Angeles area. The report proposed a system of parks, parkways, children's playgrounds, and public beaches. It was a model of ambitious, intelligent, and sensitive planning commissioned at a time when land was available. However, only segments of the report have been implemented to date. Through its planning efforts and collaboration with other agencies and jurisdictions, the DPR hopes to revive and fulfill the Olmsted and Bartholomew vision to the maximum extent possible.

Green Visions Plan (2007)

Green Visions is a joint venture between the University of Southern California and the region's land conservancies, including the Rivers and Mountains Conservancy, Santa Monica Mountains Conservancy, Coastal Conservancy, and the Baldwin Hills Conservancy. The Green Visions Plan offers a guide to habitat conservation, watershed health and recreational open space for the Los Angeles metropolitan region. The electronic tools and data developed as part of Green Visions are intended to expand the analytic and planning capabilities of local agencies and organizations to, among other things, reduce the fragmented, piecemeal approach to regional resource planning.

Greater Los Angeles County Integrated Regional Water Management Plan (2013)

The 2013 Greater Los Angeles County Integrated Regional Water Management Plan (IRWMP) addresses water resource issues of the Los Angeles region in an integrated and collaborative manner. Recreation and open space are important components of the IRWMP, with priority projects providing open space, habitat, and recreational benefits. The IRWMP also recommends that new parkland be acquired to keep pace with population growth.

SCAG Regional Comprehensive Plan (2008)

In 2008, the Southern California Association of Governments (SCAG) completed the Regional Comprehensive Plan (RCP) as a vision of how Southern California can balance resource conservation, economic vitality, and quality of life. The RCP presents a visionary, regionwide approach to coordinate and facilitate the preservation of open space in Southern California. Specifically, the Plan includes an "Open Space and Habitat" chapter, which focuses on community open space, natural lands, and farmlands. Community open space includes areas that enhance the

quality of life and completes interconnected networks of parks, trails, greenbelts, community gardens, and urban forests serving the region's communities.

Chapter 11: Noise Element

I. Introduction

Noise levels can have a significant impact on quality of life. Excessive levels of noise result in increased neighborhood annoyance, dissatisfaction, and in some cases, health and safety hazards. Due to Los Angeles County's geographic, environmental, and cultural diversity, the levels and types of noise issues vary significantly. The purpose of the Noise Element is to reduce and limit the exposure of the general public to excessive noise levels. The Noise Element sets the goals and policy direction for the management of noise in the unincorporated areas.

II. Background

Sound is the result of a sound source inducing vibration in the air. The vibration produces alternating bands of relatively dense and sparse particles in the air, spreading outward from the source. The result of the movement of the particles is a fluctuation in the normal atmosphere pressure, or sound waves. These waves radiate in all directions from the source and may be reflected and scattered or, like other wave actions, may turn corners. When the source stops vibrating, the sound waves disappear, almost instantaneously, and the sound ceases. The ear is extremely sensitive to sound pressure fluctuations, which are converted into auditory sensations.

Sound may be described by three variables: amplitude, frequency, and time pattern. For more information on sound descriptors, please refer to Appendix G.

Noise Measurement

Noise is often described in qualitative terms, and individuals differ greatly on what noises are considered pleasant or annoying. The community noise metrics used in the Noise Element are either Community Noise Equivalent Level (CNEL) or Day-Night Average Level (Ldn). CNEL and Ldn are the metrics used to describe annoyance due to noise and to establish land use planning criteria regarding noise.

Community Noise Equivalent Level (CNEL)

CNEL is the average equivalent A-weighted sound level during a 24-hour day that is obtained after the addition of five decibels to sound levels in the evening, from 7 p.m. to 10 p.m., and after the addition of 10 decibels to sound levels in the evening, from 10 p.m. to 7 a.m. The CNEL metric is currently used by the California Aeronautics Code for the evaluation of noise impacts at airports. Local compliance with the state airport standard requires that community noise levels be expressed in CNEL.

Day-Night Average Level (Ldn)

Ldn is the average equivalent A-weighted sound level during a 24-hour day that is obtained after the addition of 10 decibels to sound levels in the evening, after 10 p.m. and before 7 a.m. The Ldn represents a simplification of CNEL.

For more information on basic levels of noise measurement, please refer to Appendix G.

Noise Environment

The typical community noise environment is made up of background or “ambient noise,” and higher, “intrusive” levels of noise. In the unincorporated areas, the major sources of noise come from transportation systems, such as commercial and private airports, rail and bus networks, and the regional freeway and highway system. Other major sources of noise have historically been identified with industrial uses, such as manufacturing plants.

Effects of Noise

Noise by definition is unwanted sound. It is an intrusion on one’s sense of privacy. Noise can be an emotional strain and a source of great frustration when the noise is beyond a person’s control. Noise may interfere with a broad range of human activities, the overall effect of which is to cause annoyance.

The potential effects of noise on humans include the following:

- Hearing loss;
- Non-auditory physiological response;
- Communication interference;
- Performance interference;
- Sleep disturbance;
- Subjective response; and
- Community response.

Hearing Loss

Exposure to sufficient levels of noise for long periods of time can produce temporary or permanent loss of hearing. Noise levels have been identified as protective of the hearing of the general population from significant damage due to environmental noise. Environmental noise differs from workplace noise in that it is generally intermittent, covers 365 days per year rather than 250 work days, and covers 24 hours per day rather than 8 hours. Taking these factors into account, the U.S. Environmental Protection Agency (EPA) has identified an environmental noise level of Leq (24) = 70 dB to protect 96 percent of the general population from a hearing loss of greater than 5 dB at 4000 Hz.

Non-Auditory Physiological Response

Excessive exposure to noise may contribute to the development and aggravation of stress-related conditions, such as high blood pressure, coronary diseases, ulcers, colitis, and migraine headaches. U.S.EPA studies suggest the possibility of adverse health outcomes associated with environmental noise and underscore the need for additional research. Although it is reasonable to view annoyance as a symptom or sign of noise-induced stress, no direct test of this relationship has been made.

Communication Interference

The indirect effects of speech interference are:

- Disturbance of normal domestic or educational activities;

- Creation of an undesirable living environment;
- Safety hazards; and
- A source of extreme annoyance.

The appropriate noise levels to prevent outdoor speech interference (oral communication) for the outdoors, depends on the voice level and communication distance. For example, at a distance of two meters from the speaker with a normal voice (70 dB) the sound level that would allow communication with 95 percent intelligibility is 60 dB. Indoors, an Ldn of 50 dB permits virtually100 percent intelligibility. For older populations and people with hearing problems, the background noise would be lower.

High levels of noise reduce the number of conversations and their content, quality, and fidelity. Children have a relative lack of knowledge of language that makes them less able to “hear” speech when some of the cues are lost. Repeated exposure to high levels of noise in “critical periods of development” might affect conceptual development and the acquisition of speech, language, and language-related skills, such as reading and listening.

Performance Interference

In general, noise is more likely to reduce the accuracy than the total quantity of work, and it affects complex tasks more than simpler ones. As noise levels increase, both reaction times and numbers of errors increase. For some simple tasks, noise may enhance performance (when distracting cues are dropped out). Factors to consider on how noise affects work performance include: the characteristics of noise; characteristics of the task; aspects of performance considered important; and individual differences.

Noise levels most likely to be detrimental to performance are:

- Continuous noise levels above 90 dB; and
- Levels less than 90 dB, if they have predominantly high frequency components, are intermittent, unexpected, or uncontrollable.

According to the U.S. EPA, field studies demonstrate that high noise levels have been corroborated with poor performance on reading tests and auditory discrimination problems.

Sleep Disturbance

Sleep disturbance is one of the major causes of annoyance due to noise. Long-term or chronic sleep disturbance may lead to health disorders. In general, the higher the noise level, the greater the probability of a response. For example, a study found that there was a 5 percent probability of subjects being awakened by peak levels of 40 dB and a 30 percent probability at 70 dB. If the number of sound peaks increases, an individual will take longer to fall asleep, even if the average sound level decreases. However, continuous or very frequent noise throughout the night, even as high as 95 dB, appears to cause little change in the average duration of the sleep stages, since such stages are disturbed more by peaks than by high continuous levels alone.

Subjective Response

Excessive noise exposure can result in a variety of psychological responses or symptoms in an individual. The physical attributes of noise that can affect an individual’s subjective response include

apparent loudness or intensity, spectral shape, presence of discrete frequency components, abruptness or impulsiveness, intermittency, duration, and temporal variations. Other factors include the time of day, the activity interfered with, the ability to control the source and the information content, and personal factors.

Sounds of two KHz or higher are generally the most annoying and disruptive, although noises that are abrupt, intermittent, or fluctuate with time can be very annoying as well. In general, the louder the noise, the more annoying it is likely to be.

Community Response

Community response to noise is usually studied through social surveys. These studies attempt to predict, on an aggregate basis, the degree of annoyance or other effects that can be expected by the community at varying noise levels. Community response to noise is based on statistical averages, since it is known that response to noise varies greatly among individuals.

The most stable indicator of annoyance is the percentage of exposed persons who rate themselves as being highly annoyed. According to the U.S. EPA, there is a relationship between annoyance, complaints, and community reaction as a function of day-night sound levels. Approximately 17 percent of the population will be highly annoyed at an Ldn of 55 dB, and over 40 percent of the population will be highly annoyed if the Ldn exceeds 70 dB, which is the maximum safe level that the U.S. EPA has identified to protect against the risk of hearing loss. The relationship between noise and annoyance is based largely on the results of surveys around airports. These estimates have been criticized because aircraft noise is not present in many urban areas. In addition, complaints occur at a much lower rate than annoyance, and generally do not become evident until the noise levels are very high. For example, at an Ldn of 70 dB, approximately 10 percent of the population can be expected to complain, while 25 to 40 percent of the population will be annoyed.

Table 11.1 lists disturbances from excessive noise that range from minor sleep annoyance to potential hearing loss. Schools and hospitals, and other land uses that house sensitive receptors, or those at high risk of being affected by high noise levels, are considered noise-sensitive uses. In addition to the effects on human physiology and behavior, excessive noise impacts other species. For example, birds living in noisier environments tend to sing louder at night.

Table 11.1: Sources and Effects of Common Noise

dB	Effects	Observation	Source
130	Hearing loss	Pain threshold	Hard rock band Thunder
120		Deafening	
110			Jet take-off
100			Loud auto horn at 10 ft.
90		Very loud	Noisy city street
85			
80			School cafeteria

75			
70	Physiological effects	Loud	Vacuum cleaner at 10 ft.
65			
60	Interference with speech		Normal speech at 3 ft.
55			
50	Sleep interruption	Moderately loud	Average office Dishwasher in next room
45			
40	Sleep disturbance		Soft radio music Quiet residential area
35			
30		Faint	Interior of average residence
20			Average whisper at 6 ft.
10			Rustle of leaves in wind
5		Very faint	Human breathing
0	Audibility threshold		

Source: Compilation of scientific and academic literature, generated by FHWA and U.S. EPA.

Community Attitudes Toward Noise Impacts

Countywide outreach efforts for the General Plan reveal that both urban and rural communities experience neighborhood disturbances, such as barking dogs, leaf blowers, garbage trucks, buses, back-up alarms, permanent amplified noise (i.e., PA systems),and motorcycles. Urban residential areas seemed to be affected by commercial and industrial spillover noise, such as trucks making late night deliveries at neighborhood shopping centers. Virtually all communities objected to noise generated by freeways and major arterials. All communities reacted to aircraft noise to some extent, with the strongest reaction from those whose homes and businesses lie beneath the flight path of major airports.

In compliance with the County Noise Ordinance, the Los Angeles County Department of Public Health (DPH) has performed noise complaint assessments and surveys from 1996 through 1999. During this period, DPH responded to a total of 111 noise complaints under its statutory authority. It should be noted, however, that the quantification of complaints should not be used solely as a definitive expression of community response.

Regulatory Framework

The following section outlines federal, state and county noise-level standards.

Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce;
- Assisting state and local abatement efforts; and
- Promoting noise education and research.

The Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and inter-agency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The U.S. Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies, such as with the Federal Aviation Administration (FAA), which regulates noise generated by aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA), which requires that all rail systems receiving federal funding be constructed and operated in accordance with its regulations and specifications. The Federal Railroad Administration (FRA) sets forth and enforces safety standards, including noise emissions within railroad locomotive cabs. Transit noise is regulated by the FTA, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). The FHWA has adopted and promulgated noise abatement criteria for highway construction projects. The federal government encourages local jurisdictions to use their land use regulatory authority to site new development to minimize potential noise impacts. For information on federal guidelines for acceptable environmental noise levels, please refer to Appendix G.

State Regulations

A major source of excessive noise is airports. Title 21 of the California Code of Regulations establishes the maximum acceptable level of aircraft noise in proximity to residences, schools, hospitals, and places of assembly at 65 dB CNEL. The County's Airport Land Use Plan was adopted by the Airport Land Use Commission (ALUC) in 1991 and contains noise contours based on the state standards for all public use airports within Los Angeles County. Figure 11.1 shows these noise contours, and includes updated noise contour data where available. The County's Airport Land Use Plan can be found on the Los Angeles County Department of Regional Planning's web site, located at http://planning.lacounty.gov/ALUC.

Figure 11.1: Airport Noise Contours Map

Additional state regulatory codes that relate to noise abatement include:

- Uniform Building Code: Title 24 of the California Code of Regulations requires certain noise insulation measures to be used in the design of all new residential construction other than detached, single family dwellings;
- Vehicle Code: Establishes maximum noise levels for motor vehicles; and
- California Code of Regulations: Establishes maximum acceptable levels of aircraft noise.

The California Department of Health Service's Office of Noise Control (ONC), established in 1973, was instrumental in developing regulatory tools to control and abate noise for use by local agencies. One significant model is the Land Use Compatibility for Community Noise Environments Matrix, which allows a local jurisdiction to clearly delineate the compatibility of sensitive uses with various incremental levels of noise. The County has adapted this matrix to develop the County's exterior noise standards, as seen in Table 11.2.

County Regulations

The County maintains the health and welfare of its residents with respect to noise through nuisance abatement ordinances and land use planning. The County Noise Control Ordinance, Title 12 of the County Code, was adopted by the Los Angeles County Board of Supervisors in 1977 "…to control unnecessary, excessive, and annoying noise and vibration.…" It declares that the purpose of the County policy is to "…maintain quiet in those areas which exhibit low noise levels and to implement programs aimed at reducing noise in those areas within the county where noise levels are above acceptable values." (Section 12.08.010 of the County Code).

On August 14, 2001, the Board of Supervisors approved an ordinance amending Title 12 of the County Code to prohibit loud, unnecessary, and unusual noise that disturbs the peace and/or quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitivity residing in the area. Regulations can include requirements for sound barriers, mitigation measures to reduce excessive noise, or the placement and orientation of buildings, and can specify the compatibility of different uses with varying noise levels, as shown in Table 11.2. For more information on noise barrier strategies, please see Appendix G.

Table 11.2: Los Angeles County Community Noise Criteria

			Level (dBA)				
Noise Zone	**Land Use of Receptor Property**	**Time**	**Std 1L5030 min/hr**	**Std 2L2515 min/hr**	**Std 3L8.35 min/hr**	**Std 4L1.71 min/hr**	**Std5L0 at no time**
I	Noise Sensitive	Anytime	45	50	55	60	65
II	Residential	10PM to 7AM	45	50	55	60	65
		7AM to 10PM	50	55	60	65	70
III	Commercial	10PM to 7AM	55	60	65	70	75
		7AM to 10PM	60	65	70	75	80
IV	Industrial	Anytime	70	75	80	85	90

Source: Section 12.08.390 of the Los Angeles County Code (a portion of the Noise Control Ordinance)

Noise Levels

Figure 11.2 shows the noise contours for major sources of noise. A discussion of current and projected levels for major sources of noise in the unincorporated areas can be found in Section 5.12 Noise and Vibration, and Appendix K of the General Plan Environmental Impact Report.

Figure 11.2: Noise Contours Map

III. Issues

Reducing Noise Impacts Through Planning

Since excessive noise affects quality of life, existing and future noise levels must be considered when making land use planning decisions to minimize exposure to excessive noise. Noise-sensitive uses, such as residences, hospitals, schools, childcare facilities, and places of assembly are especially vulnerable to excessive noises generated by airports, rail, freeways and primary arterials, heavy industry and warehousing facilities. As stated in the noise policies, planning for these noise-sensitive uses must include sufficient spatial separation or site design and construction to ensure compatibility with noise-generating uses.

Coordinated transportation and land use planning plays a critical role in the prevention and mitigation of excessive noise impacts. Federal and state laws, in many instances, preempt local laws from controlling certain sources by setting noise levels and operational procedures for aircraft, motor vehicles, and interstate carriers. Local governments can, whenever they have jurisdictional authority, address these noise problems through a combination of land use planning, building code and zoning regulations, and other policies where a noise abatement program is required.

As specified in Policy N 1.12, decisions on land adjacent to transportation facilities, such as the airports, freeways and other major highways, must consider both existing and future noise levels of these transportation facilities to assure the compatibility of proposed uses.

In addition, the condition of road surfaces and traffic congestion can contribute to vehicle noise. Local roadway design features, traffic management, and traffic calming techniques can minimize noise from traffic speed and frequent vehicle acceleration and deceleration, while innovative roadway paving material can further reduce traffic noise.

IV. Goals and Policies

Goal N 1: The reduction of excessive noise impacts.	
Topic	**Policy**
Reducing Noise Impacts	Policy N 1.1: Utilize land uses to buffer noise-sensitive uses from sources of adverse noise impacts.
	Policy N 1.2: Reduce exposure to noise impacts by promoting land use compatibility.

	Policy N 1.3: Minimize impacts to noise-sensitive land uses by ensuring adequate site design, acoustical construction, and use of barriers, berms, or additional engineering controls through Best Available Technologies (BAT).
	Policy N 1.4: Enhance and promote noise abatement programs in an effort to maintain acceptable levels of noise as defined by the Los Angeles County Exterior Noise Standards and other applicable noise standards.
	Policy N 1.5: Ensure compliance with the jurisdictions of State Noise Insulation Standards (Title 24, California Code of Regulations and Chapter 35 of the Uniform Building Code), such as noise insulation of new multifamily dwellings constructed within the 60 dB (CNEL or Ldn) noise exposure contours.
	Policy N 1.6: Ensure cumulative impacts related to noise do not exceed health-based safety margins.
	Policy N 1.7: Utilize traffic management and noise suppression techniques to minimize noise from traffic and transportation systems.
	Policy N 1.8: Minimize noise impacts to pedestrians and transit-riders in the design of transportation facilities and mobility networks.
	Policy N 1.9: Require construction of suitable noise attenuation barriers on noise sensitive uses that would be exposed to exterior noise levels of 65 dBA CNEL and above, when unavoidable impacts are identified.
	Policy N 1.10: Orient residential units away from major noise sources (in conjunction with applicable building codes).
	Policy N 1.11: Maximize buffer distances and design and orient sensitive receptor structures (hospitals, residential, etc.) to prevent noise and vibration transfer from commercial/light industrial uses.
	Policy N 1.12: Decisions on land adjacent to transportation facilities, such as the airports, freeways and other major highways, must consider both existing and future noise levels of these transportation facilities to assure the compatibility of proposed uses.

V. Noise Element Implementation Program

- Countywide Noise Assessment Survey/County Noise Ordinance Update
- Countywide Noise Mapping
- Noise Abatement Program

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

Chapter 12: Safety Element

II. Introduction

Development in Los Angeles County has extended into areas with environmental hazards, such as hillsides, floodplains, and seismic areas. If this pattern of growth continues, it will further increase the vulnerability of Los Angeles County residents to seismic, geotechnical, flood, and fire hazards. In addition, studies suggest that climate change will increase the risk of natural hazards, particularly related to wildland fires and flooding.

The purpose of the Safety Element is to reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards. The California Government Code requires the General Plan to address "the protection of the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence, liquefaction, and other seismic hazards...; flooding; and wildland and urban fires." The Safety Element addresses only limited aspects of man-made disasters, such as hazardous waste and materials management, in particular, those aspects related to seismic events, fires, and floods. In general, hazardous materials management is addressed in the Los Angeles County Integrated Waste Management Plan (California Code of Regulations (CCR) Section 18755.5).

The Safety Element works in conjunction with the Operational Area Emergency Response Plan (OAERP), which is prepared by County's Chief Executive Office - Office of Emergency Management (CEO OEM). The OAERP strengthens short and long-term emergency response and recovery capability, and identifies emergency procedures and emergency management routes in Los Angeles County. To access the OAERP, and to find more information on the OEM, please visit the CEO's web site at http://lacoa.org/oaerp.htm.

CEO OEM also prepares the All-Hazard Mitigation Plan, which provides policy guidance for minimizing threats from natural and man-made hazards in Los Angeles County. The All-Hazard Mitigation Plan, which has been approved by the Federal Emergency Management Agency (FEMA) and the California Emergency Management Agency (CalEMA), includes a compilation of known and projected hazards in Los Angeles County. The All-Hazard Mitigation Plan also includes information on historical disasters in Los Angeles County. For more information on the County All-Hazard Mitigation Plan, please visit the CEO web site at http://lacoa.org/hazmit.htm.

II. Seismic and Geotechnical Hazards

Background

Since 1800, over 90 significant earthquakes have occurred in the Los Angeles region. There are over 50 active and potentially active fault segments, an undetermined number of buried faults, and at least four blind thrust faults capable of producing damaging earthquakes in Los Angeles County.

The California Alquist-Priolo Earthquake Fault Zoning Act of 1972 and Section 113 of the County Building Code prohibits the location of most structures for human occupancy across the traces of active faults, and lessens the impacts of fault rupture. In addition, the California Seismic Hazards Mapping Act of 1990 regulates developments as defined by the Act. Seismic Hazard Zone maps depict areas where earthquake induced liquefaction or landslides have historically occurred, or where there is a high potential for such occurrences. Liquefaction is a process by which water

saturated granular soils transform from a solid to a liquid state during strong ground shaking. A landsliding is a general term for a falling, sliding or flowing mass of soil, rocks, water and debris.

The main provisions of the Alquist-Priolo Earthquake Fault Zoning and Seismic Hazard Mapping Acts are to:

- Require the California Geological Survey to prepare maps depicting earthquake fault zones, liquefaction hazard zones and earthquake-induced landslide zones.
- Require property owners (or their real estate agents) to disclose that their property lies within identified hazard zones; and
- Prohibit new construction of projects within identified hazard zones until a comprehensive geotechnical study has been completed.

Figure 12.1 identifies the County's Seismic Hazard Zones. In addition to depicting faults within Alquist-Priolo Earthquake Fault Zones, Figure 12.1 also depicts faults that are considered active based on published and unpublished information. For more details on active faults in Los Angeles County, please refer to Appendix H.

Figure 12.1: Seismic and Geotechnical Hazard Zones Policy Map

Issues

1. Seismic Hazards

Earthquakes can cause ground rupture, liquefaction and landsliding. In addition, flooding in low-lying coastal areas can result from a tsunami that is generated by a large offshore earthquake or sub-marine landslides. Widespread and localized earthquake induced effects place structures or utility corridors at-risk, and if damaged, can result in fires, failure of large dams, or the release of toxic, flammable, or explosive materials. The General Plan prohibits new projects, as defined by the Alquist-Priolo Act and Seismic Hazards Mapping Acts, until a comprehensive geotechnical study has been completed.

2. Geotechnical Hazards

More than 50 percent of the unincorporated areas are comprised of hilly or mountainous terrain. The vast majority of hillside hazards include mud and debris flows, active deep seated landslides, hillside erosion, and man-induced slope instability. These geotechnical hazards include artificially-saturated or rainfall-saturated slopes, the erosion and undercutting of slopes, earthquake induced rock falls and shallow failures, and natural or artificial compaction of unstable ground. The County's Hillside Management Area Ordinance regulates development in hillsides that have natural slope gradients of 25 percent or steeper, and these potential hazards are analyzed as part of the permitting process.

Goals and Policies for Seismic and Geotechnical Hazards

Goal S 1: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards.	
Topic	**Policy**
Geotechnical Hazards	Policy S 1.1: Discourage development in Seismic Hazard and Alquist-Priolo Earthquake Fault Zones.
	Policy S 1.2: Prohibit the construction of most structures for human occupancy adjacent to active faults until a comprehensive fault study that addresses the potential for fault rupture has been completed.
	Policy S 1.3: Require developments to mitigate geotechnical hazards, such as soil instability and landsliding, in Hillside Management Areas through siting and development standards.
	Policy S 1.4: Support the retrofitting of unreinforced masonry structures to help reduce the risk of structural and human loss due to seismic hazards.

III. Flood and Inundation Hazards

Background

Federal, state, and local agencies share and coordinate responsibilities for flood protection in Los Angeles County. The two main federal agencies include the U.S. Army Corps of Engineers, which implements federal flood protection policies, and the Federal Emergency Management Agency (FEMA). The California Department of Water Resources (DWR) is responsible for managing the state's waterways. Locally, the Los Angeles County Department of Public Works (DPW) and the Los Angeles County Flood Control District work to reduce flood risk in Los Angeles County. One way in which DPW and the Flood Control District manage flood risk is through the development of the Sediment Management Strategic Plan. For more information on the Sediment Management Strategic Plan, please visit http://dpw.lacounty.gov/lacfcd/sediment/Default.asp.

For a comprehensive list of agencies responsible for flood management, protection, as well as financial assistance, please refer to Appendix H.

Flood Hazard Zones

Flood Hazard Zones are areas subject to moderate or minimal flood hazards that are identified on an official Flood Insurance Rate Map issued by FEMA. Flooding in Los Angeles County can be earthquake induced or can result from intense rainfall. Figure 12.2 shows the County's Flood Hazard Zones, which are 100-year and 500-year floodplains designated by FEMA.

In addition to the Flood Hazard Zones, DWR's Awareness Floodplain Mapping Program identifies potential flood hazard areas that are not part of the regulated floodplain. For the available awareness floodplain maps for the unincorporated areas, please refer to Appendix H.

Figure 12.2: Flood Hazard Zones Policy Map

Since 1980, the County has been a voluntary participant in the FEMA National Flood Insurance Program (NFIP). As a participant, the County is responsible for regulating development in Flood Hazard Zones and planning for floodplain management activities that promote and encourage the preservation and restoration of the natural state of the floodplain. As a compliance requirement of the NFIP, the County enforces regulations to ensure that buildings are erected at a safe elevation and to prevent potential damage to properties.

The County provides information on Flood Hazard Zones from FEMA's Flood Insurance Rate Maps to property owners for use in resolving flood insurance matters with insurance companies and lending institutions. The County conducts educational outreach to communities in the unincorporated areas on how to mitigate flooding impacts on properties. Through these and other efforts, the County reduces flood insurance costs for residents who are required to purchase flood insurance by lowering a community's overall rating system number.

For more information on flood hazards, please visit the DPW web site at http://dpw.lacounty.gov/wmd/nfip. Please also visit the U.S. Army Corps of Engineers National Levee Database at http://nld.usace.army.mil.

Issues

Flood Hazards and the Impacts of Climate Change

Large sub-marine landslides have the potential to generate destructive tsunamis along adjacent coastal areas in Southern California. The travel time for a locally generated tsunami, from initiation at the source to arrival at coastal communities, can be 5 to 30 minutes.

The likelihood for the catastrophic inundation of low-lying coastal areas as a result of a tsunami is low. However, the risk of losing vital commerce associated with the ports of Los Angeles and Long Beach warrants adequate risk reduction measures from tsunamis. The ports of Los Angeles and Long Beach have completed a Tsunami Hazard Assessment to guide disaster planning and mitigate damage from a potential tsunami at their facilities. In addition, the County All-Hazard Mitigation Plan includes risk reduction measures for the coastal areas.

Figure 12.3 identifies Tsunami Hazard Areas in Los Angeles County, which include Marina del Rey and portions of the Santa Monica Mountains Coastal Zone.

Figure 12.3: Tsunami Hazard Areas Map

The inundation of water caused by a catastrophic dam or aqueduct failure can devastate large areas and threaten residences and businesses. There are 103 dams in Los Angeles County that hold billions of gallons of water in reservoirs, and seismic activity can compromise dam structures and result in catastrophic flooding. The Division of Safety of Dams of the California Department of Water Resources has jurisdiction over large dams throughout the State and enforces strict safety requirements and annual inspections. Additionally, dam inundation areas have been mapped by dam owners and submitted to the California Office of Emergency Services (Cal/OES) to ensure effective emergency planning and adequate preparations in the event of a catastrophic event.

Climate change is expected to produce longer and more severe droughts due to higher average temperatures, as well as greater and more frequent floods. The water systems in Los Angeles County are designed to balance flood protection during the winter and spring months with water storage during the dry months. Increased rainfall and an earlier melting of the snowpack could result in overburdened facilities that cannot adequately protect communities from floods. In addition, consideration needs to be made for floods caused by sea level rise. Figure 12.4 shows the areas along the coastline that can potentially be impacted due to sea level rise flooding. While these impacts are likely to occur over a long period of time, sea level rise can affect and alter the impacts of flood inundation of low-lying coastal areas. Impacts related to sea level rise include the flooding of septic systems and the intrusion of salt water into the fresh water supply. Although coastal habitats can adapt to gradual changes in sea level, an accelerated rise in sea level will negatively impact coastal habitats. Wetlands, in particular, are at risk of being inundated.

Figure 12.4: Sea Level Rise Impact Areas Map

Goals and Policies for Flood and Inundation Hazards

Goal S 2: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to flood and inundation hazards.	
Topic	**Policy**
Flood Hazards	Policy S 2.1: Discourage development in the County's Flood Hazard Zones.
	Policy S 2.2: Discourage development from locating downslope from aqueducts.
	Policy S 2.3: Consider climate change adaptation strategies in flood and inundation hazard planning.
	Policy S 2.4: Ensure that developments located within the County's Flood Hazard Zones are sited and designed to avoid isolation from essential services and facilities in the event of flooding.
	Policy S 2.5: Ensure that the mitigation of flood related property damage and loss limits impacts to biological and other resources.
	Policy S 2.6: Work cooperatively with public agencies with responsibility for flood protection, and with stakeholders in planning for flood and inundation hazards.
	Policy S 2.7: Locate essential public facilities, such as hospitals and fire stations, outside of Flood Hazard Zones, where feasible.

IV. Fire Hazards

Background

Fire Hazard Severity Zones

While all of California is subject to some degree of fire hazard, there are specific features that make some areas more hazardous. The California Department of Forestry and Fire Protection (CAL FIRE) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as Fire Hazard Severity Zones (FHSZ), influence how people construct buildings and protect property to reduce risk associated with wildland fires.

Los Angeles County faces wildland fire threats due to its topography, rainfall patterns and fire-adapted vegetation. The at-risk areas are designated as FHSZs per Government Code Sections 51175–51189. FHSZs in the unincorporated areas are classified as Very High, High, and Moderate in State Responsibility Areas and Very High in Local and Federal Responsibility Areas. The Forestry Division of the Los Angeles County Fire Department (Fire Department) assists and supports the implementation of the CAL FIRE FHSZ model designation in Los Angeles County.

In an effort to reduce the threats to lives and property, the Fire Department has instituted a variety of regulatory programs and standards. These include vegetation management, pre-fire management and planning, the fuel modification Plan Review Program, and brush clearance inspection program. In addition to these programs, the Fire Department and DPW enforce fire and building codes related to development in FHSZs. The Fire Department implements the Title 32 (Fire Code) requirements in FHSZs.

Figure 12.5 identifies the FHSZs in Los Angeles County. For more information on the County's fire prevention and safety programs, please visit the Los Angeles County Fire Department's web site at http://www.fire.lacounty.gov.

Figure 12.5: Fire Hazard Severity Zones Policy Map

California Strategic Fire Plan

The State Board of Forestry and the California Department of Forestry and Fire Protection (CAL FIRE) have drafted a comprehensive document for wildland fire protection in California. The Fire Department Forestry Division's Fire Plan Unit is in charge of implementing the California Fire Plan in Los Angeles County. The planning process defines a level of service measurement, considers assets at risk, incorporates the cooperative inter-dependent relationships of wildland fire protection providers, provides for public stakeholder involvement, and creates a fiscal framework for policy analysis. The Fire Plan assessment process utilizes weather, assets at risk, fuels and input from the various regions, bureaus, divisions and battalions to help target critical areas and prioritize projects.

The Fire Department is one of six contract counties that maintain a contractual relationship with CAL FIRE and implements the California Fire Plan within Los Angeles County through the Strategic Fire Plan. The Strategic Fire Plan, which is prepared by the Fire Department, identifies and prioritizes pre- and post-fire management strategies and tactics to reduce loss of life, property, and natural resources. The Strategic Fire Plan is updated annually. This Safety Element incorporates the Strategic Fire Plan by reference and as amended annually. For more information, please visit the following web site: http://www.fire.lacounty.gov.

Regulations

Fuel Modification Plan Review Program

Fuel modification plans are required for development projects within areas designated as a Fire Hazard Severity Zone within the State Responsibility Areas or Very High Fire Hazard Severity Zone within the Local Responsibility Areas, as described in Title 32, Fire, Section 4908. The fuel modification plan identifies specific zones within a property that are subject to fuel modification. A fuel modification zone is a strip of land where combustible native or ornamental vegetation has been modified and/or partially or totally replaced with drought-tolerant, low-fuel-volume plants. The County of Los Angeles Fuel Modification Guidelines can be found athttp://www.fire.lacounty.gov.

Fire prevention items addressed in the County Fire Code include provision of fire apparatus access roads, adequate road widths, requirements for all-weather access and fire flow, fire hydrant spacing, and clearance of brush around structures located in hillside areas that are considered primary wildland fire risk areas. Table 12.1 references fire-related land use and building regulations, including fuel modification, in the Los Angeles County Code.

Table 12.1. Fire-Related Land Use and Building Regulations in the Los Angeles County Code

Reference	Summary
Title 32, Fire, Section 4907.1	Defensible space around structures in State Responsibility Areas, per Title 14, Section 1270 of the California Code of Regulations
Title 32, Fire, Sections 4908, 1117.2.1	Fuel modification
Title 32, Fire, Section 325	Clearance of brush and vegetative growth
Title 20, Utilities, Section 20.16.060	Fire flow and fire hydrant requirements, including in Very High Fire Hazard Severity Zones.
Title 21, Subdivisions, Chapter 21.24, Part 1	Access road requirements for fire equipment access and public evacuation.
Title 21, Subdivisions, Section 21.44.250	Storm drain, sewer, or fire access easement designations on subdivision maps.
Title 21, Subdivisions, Section 21.24.220	Fire-protection access easements
Title 26, Building, Chapter 7A	Buildings within a Wildland-Urban Interface Fire Area.
Title 32, Fire, Section 105.7.9.1	Fire Department approval for land development projects.
Title 32, Fire, Section 328.10	Land development plan reviews located within VHFSZs.

Conservation and Wildland Areas

Significant Ecological Areas and Oak Woodlands

Many of the areas that contain biological resources in the unincorporated areas, including those within Significant Ecological Areas (SEAs) and Coastal Resource Areas (CRAs),as well as oak woodlands, overlap with fire hazard areas.

The Conservation and Natural Resources Element includes a map and goals and policies related to SEAs and CRAs. General descriptions of the biological resources and designation criteria for each SEA and CRA are contained in the Technical Appendix. The SEA Program also includes an implementing ordinance, the SEA Ordinance, which is part of the County's Title 22 planning and zoning code. The SEA Program Guide contains additional detail about the biological resources present in each SEA along with additional information to assist the County in managing resources within the SEAs.

In addition, as described in the Conservation and Natural Resources Element, DRP will work to expand documentation of oak woodlands as part of the implementation of the Oak Woodlands Conservation Management Plan. Oak woodlands play an important role in reducing risk of wildfires. The native understory of oak woodlands typically contains less flammable vegetation than other types of trees. Oak trees are also harder to ignite and not as prone to rapid combustion. Oak stands that are well maintained prevent slope failure, reduce erosion and can slow down a wildfire.

As part of the project planning review process, the Fire Department complies with the California Environmental Quality Act (CEQA), the CAL FIRE programmatic Environmental Impact Report for chaparral vegetation management programs, and the County's Oak Tree and Significant Ecological Areas ordinances to consider project impacts to wildlife habitats and endangered species.

Integrated Vegetation Management Program

Vegetation management, as it relates to wildland fire, refers to the total or partial removal of high fire hazard grasses, shrubs, or trees. This includes thinning to reduce the amount of fuel and modification of vegetation arrangement and distribution to disrupt fire progress. In addition to fire hazard reduction, vegetation management has other benefits. These include increased water yields, habitat restoration and improvement, reduction of invasive exotic plant species, and open access for recreational purposes.

The Vegetation Management Program (VMP) is a cost-sharing program that focuses on the use of prescribed fire, hand crews, mechanical, biological and chemical means, for addressing wildland fire fuel hazards, habitat restoration and other resource management issues on State Responsibility Area and Local Responsibility Area lands.

VMP allows private landowners, state and conservancy entities to enter into a contract with CAL FIRE to accomplish a combination of fire protection and resource management goals, including in open space areas. The Fire Department Forestry Division's Vegetation Management Unit and the Air and Wildland Division's Prescribed Fire Office implement VMP projects.

Pest, Disease and Other Forest Health Issues

The County of Los Angeles Department of Agricultural Commissioner / Weights and Measures (ACWM) maintains a vast network of insect traps throughout much of Los Angeles County. The

network is designed to serve as an early warning system for some of California's most feared insect pests, including species such as the gypsy moth, which have the potential to damage fragile wildland and watershed areas. The County of Los Angeles Fire Department Forestry Division assists the ACWM with detection and mitigation of insect and plant diseases, pests, and invasive species.

The County also collaborates with state, local and educational agencies on the detection, management and mitigation of insect and plant diseases, pests, and invasive species such as the golden spotted oak borer and polyphagous shot hole borer.

Circulation and Access

The Fire Department Strategic Fire Plan includes a map of existing Fire Department helispot fuel reduction projects, water resources, motorway maintenance maps, and a description of the road and fuel maintenance functions of the Fire Department.

Section 503 of Title 32 provides additional specifications for fire access roads in developed areas, including dimensions and markings.

Issues

1. The Increasing Costs of Wildland Fires

Although fires are a natural part of the wildland ecosystem, development in wildland areas increases the danger of wildfires to residents, property, and the environment. Increased fire frequency is the primary threat to wildland ecosystems, which are adapted to an infrequent fire return interval. Frequent fires cause habitat type conversion and the presence of invasive species.

Wildland fire threats are increasing, in part due to climate change. The rise in temperatures and prolonged periods of drought increase the fire ignition potential and may increase the frequency and duration of wildfires. Wildfires also have negative impacts on air quality. As exposure to smoke and particulate matter has immediate and long-term public health impacts, populations may suffer from eye irritations, respiratory problems, and complications to existing lung and heart conditions. Wildfires also have major economic impacts and have the potential to cost the County millions of dollars every year.

Although multiple regulations are in place to ensure that adequate infrastructure, such as peak load water supplies and necessary disaster routes are incorporated into new developments, older communities with aging and substandard infrastructure may face greater risks from wildland fires. In addition, current regulations cannot ensure that all developments that locate in FHSZs are protected from wildland fire threats.

For a timeline of recent fires and their countywide impacts, as well as their impacts on the unincorporated areas, please refer to Appendix H.

2. Urban Fire Considerations

Due to the intensity of development, population density, and the difficulties of containment, the County must also devote major resources to controlling potential fire hazards in its urbanized areas. Fire safety and suppression are especially critical in industrial areas and highrise buildings. The County must also consider performance standards and use exemptions that minimize urban fire risks, such as regulating certain commercial uses that have high fire risks in mixed use developments.

3. Fire Prevention, Response and Recovery

Appendix H references the relevant County codes, as well as programs and functions of the Fire Department and other agencies in fire prevention, fire/emergency response and recovery as required by CAL FIRE. Additional information can be found in the Strategic Fire Plan, which is updated annually.

Goals and Policies for Fire Hazards

Goal S 3: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to fire hazards.	
Topic	**Policy**
Fire Hazards	Policy S 3.1: Discourage high density and intensity development in VHFHSZs.
	Policy S 3.2: Consider climate change implications in fire hazard reduction planning for FHSZs.
	Policy S 3.3: Ensure that the mitigation of fire related property damage and loss in FHSZs limits impacts to biological and other resources.
	Policy S 3.4: Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire resistant building materials, vegetation management, fuel modification and other fire hazard reduction programs.
	Policy S 3.5: Encourage the use of low-volume and well-maintained vegetation that is compatible with the area's natural vegetative habitats.
	Policy S 3.6: Ensure adequate infrastructure, including ingress, egress, and peak load water supply availability for all projects located in FHSZs.
	Policy S 3.7: Site and design developments located within FHSZs, such as in areas located near ridgelines and on hilltops, in a sensitive manner to reduce the wildfire risk.
	Policy S 3.8: Support the retrofitting of existing structures in FHSZs to help reduce the risk of structural and human loss due to wildfire.
	Policy S 3.9: Adopt by reference the County of Los Angeles Fire Department Strategic Fire Plan, as amended.
	Policy S3.10: Map oak woodlands in Los Angeles County as part of implementation of theOak Woodlands Conservation Management Plan.
	Policy S 3.11: Support efforts to address unique pest, disease, exotic species and other forest health issues in open space areas to reduce fire hazards and support ecological integrity.
	Policy S 3.12: Support efforts to incorporate systematic fire protection improvements for open space, including facilitation of safe fire suppression tactics, standards for adequate access for firefighting, fire mitigation planning with landowners and other stakeholders, and water sources for fire suppression.

V. Emergency Response

Background

Emergency Responders

Office of Emergency Management (OEM)

The Office of Emergency Management is responsible for organizing and directing the preparedness efforts of the Emergency Management Organization of Los Angeles County. OEM is the day-to-day Los Angeles County Operational Area coordinator for the County. The emergency response plan for the unincorporated areas is the Operational Area Emergency Response Plan (OAERP), which is prepared by OEM. The OAERP strengthens short and long-term emergency response and recovery capability, and identifies emergency procedures and emergency management routes in Los Angeles County. To access the OAERP, and to find more information on the OEM, please visit the CEO's web site at http://lacoa.org.

Disaster Response

Figure 12.6 shows the County's disaster routes. For more information on disaster response, please refer to the County OAERP.

Figure 12.6: Disaster Routes Map

Los Angeles County Fire Department

The Fire Department provides fire, safety, and emergency medical services to the unincorporated areas. The Strategic Fire Plan includes the County of Los Angeles Fire Department Operations Bureau Map, which indicates that emergency services are available in all unincorporated areas of the County. Additionally, many cities within Los Angeles County utilize Fire Department services. There are three major geographic regions in the Fire Department service area, which are divided into nine divisions and 22 battalions, as seen in Figure 12.7.

Figure 12.7: Fire Department Battalions and Stations Map

The Fire Department operates multiple divisions including Air and Wildland, Fire Prevention, and Forestry. In addition, the Health Hazardous Materials Division's mission is to "protect the public health and the environment...from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement, and site mitigation oversight."

The Fire Department is a special district and receives most of its revenue from the unincorporated areas from a portion of the ad valorem property tax paid by the owners of all taxable properties. This revenue source varies from one tax rate area to another, and is specifically earmarked for the Fire Department. The Fire Department's Special Tax, which was approved by voters in 1997, is a supplemental revenue source that pays for essential fire suppression and emergency medical services. In addition, in 1990, the Board of Supervisors adopted a Los Angeles County Developer Fee Program to fund the acquisition, construction, improvement, and equipping of fire station facilities in the high growth areas of the unincorporated areas.

The County of Los Angeles Fire Department has one of the premier firefighter training programs in the nation. The Class Specifications can be found at http://dhrdcap.co.la.ca.us/classspec/index.cfm?fuseaction=search.detail&cs_id=22. For wildland firefighters, the Department follows the National Wildfire Coordination Group (NWCG) qualifications for operational, logistical, planning and financial positions. For more information, please visit http://www.nwcg.gov/.

For more information on the Fire Department's programs and divisions, please visit their web site at http://fire.lacounty.gov.

Los Angeles County Sheriff's Department

The Los Angeles County Sheriff's Department (LASD) is the largest sheriff's department in the country. In addition to specialized services, the LASD is divided into 10 divisions, including the Office of Homeland Security, which focuses on potential threats related to local homeland security issues, such as terrorism or bioterrorism. The LASD provides law enforcement services to more than one million people living within 90 unincorporated communities, as well as to more than four million residents living within 40 contract cities. In addition, LASD provides law enforcement services to nine community colleges, Metro, and 48 Superior Courts. In addition to proactive enforcement of criminal laws, the LASD also provides investigative, traffic enforcement, accident investigation, and community education functions.

The Training Bureau consists of seven different programs which are designed to provide academy recruits and in-service personnel with the most up-to-date, innovative, creative and realistic learning experiences available to present day law enforcement. The featured programs are:

- Recruit Training Unit
- Advanced Officer Training Unit
- Weapons of Mass Destruction Detail
- Field Operations Training Unit
- Education-Based Discipline Unit
- Weapons Training
- Tactics and Survival Training Unit (Laser Village)
- Emergency Vehicle Operations Center
- Professional Development Unit

The LASD budget is approved by the Board of Supervisors through the utilization of state and local tax dollars. These funds are augmented by revenue generating contracts and grant allowances.

The passage of tax limitation measures, decline in the popular support for bond measures, and reductions in state and federal assistance, has hampered the capability of local governments to fund public safety. The LASD partnered with the City of Santa Clarita and the Board of Supervisors to establish the Law Enforcement Facilities Fee. The Law Enforcement Facilities Fee is a fee program that applies to certain projects in the Santa Clarita Valley and aims to mitigate project impacts on law enforcement service and facilities.

Figure 12.8 identifies the location of LASD's service areas. The Field Operation Regions are centered on 25 patrol stations that are dispersed throughout Los Angeles County.

For the location and detailed information of each station, and further information on the LASD Office of Homeland Security, please visit the LASD web site at http://www.lasd.org.

Figure 12.8: Sheriff's Department Service Areas Map

Emergency Response Across County Agencies

Emergency response is handled in the field through incident command posts, As described in the OAERP, the County's Emergency Operations Center provides centralized support to field responders to coordinate overall County response.

Cross-Jurisdictional Emergency Response

In emergency services, mutual aid is an agreement among emergency responders to lend assistance across jurisdictional boundaries. This may occur due to an emergency response that exceeds local resources, such as a disaster or a multiple-alarm fire. Mutual aid may be ad hoc, requested only when such an emergency occurs. It may also be a formal standing agreement for cooperative emergency management on a continuing basis, such as ensuring that resources are dispatched from the nearest fire station, regardless of which side of the jurisdictional boundary the incident is on. Agreements that send closest resources are regularly referred to as "automatic aid agreements." Current agreements are:

- Los Angeles County Operational Area Mutual Aid Plan;
- California Fire Master Mutual Aid Agreement;
- California Master Cooperative Wildland Fire Management (CFMA) and Stafford Act Response Agreement; and
- California Fire Assistance Agreement.

Over the last several decades an expansion of communities, homes and other improvements into wildland areas has created a significant challenge for the fire service agencies responsible for providing fire protection in those areas.

Wildland-urban interface fires often overtax the local fire agency resulting in the activation of mutual aid and automatic aid agreements to augment jurisdictional resources. Nearly every wildland-urban interface fire includes responses from a variety of wildland and municipal fire agencies. Los Angeles County's Operational Area Emergency Response Plan conforms to California's Standardized Emergency Management System (SEMS), which is intended to facilitate communication and coordination among all responding agencies. The system unifies all elements of California's emergency management community into a single integrated system and standardizes key elements. SEMS incorporates the use of the Incident Command System (ICS), California Disaster and Civil Defense Master Mutual Aid Agreement, and other forms of multi-agency or inter-agency coordination.

Los Angeles Regional Interoperable Communication System (LA-RICS)

The Los Angeles region's first responders currently use a patchwork of often incompatible radio technologies and frequencies. This uncoordinated system means that neighboring agencies and systems cannot easily communicate with one another.

The Los Angeles Regional Interoperable Communication System (LA-RICS) is a modern, integrated wireless voice and data communication system designed and built to serve law enforcement, fire service and health service professionals throughout Los Angeles County. The new system will provide day-to-day communications within agencies and allow seamless interagency communications for responding to routine, emergency and catastrophic events. LA-RICS will replace

the patchwork system with a single countywide network, improve overall traffic capacity and coverage, and provide a dedicated broadband network for first responders. More information about LA-RICs is available at http://www.la-rics.org/.

Homeland Security

The Fire Department's Homeland Security/Hazardous Materials Section was created in 1995 in response to Presidential Decision Directive 39, outlining the need for the Fire Department to plan, organize and direct its members in preparing and responding to any large scale terrorist incident in the Los Angeles County Operational Area.

The Homeland Security Section was born out of necessity in response to the community's concerns that emergency responders need to be fully equipped and trained to deal with a chemical, biological, radiological, nuclear or explosive event. Today, all County firefighters and other emergency responders have the necessary personnel protective equipment and the training to respond safely and effectively to an event of this type. The Fire Department is also represented on the Federal Bureau of Investigations' Los Angeles Joint Terrorism Task Force.

Issues

1. The Need for Adequate Emergency Response Services

A catastrophic natural or man-made disaster has the potential to severely strain the emergency response and recovery capabilities of federal, state and local governments, and profoundly impact the regional and state economy. It is imperative that there are adequate resources available for emergency response. For example, to effectively and efficiently fulfill all of its functions, the Fire Department requires a staff level of one deputy sheriff per each 1,000 population.

Effective emergency response requires that the County provide public alerts and warnings for disasters. In addition, there is a need for preparedness communications about threats that face communities throughout Los Angeles County.

2. Creating Efficiencies Through Collaboration and Coordination

Continued growth and development in Los Angeles County will significantly affect the Fire Department and LASD operations. Coordination among various County departments is necessary to ensure adequate emergency response. Collaboration can also ensure that development occurs at a rate that keeps pace with service needs. In order to maintain an adequate emergency response system, it is important for the County to discourage development in hazardous areas, including Very High Fire Hazard Severity Zones, Flood Hazard Zones, and Seismic and Geotechnical Hazard Zones.

Goals and Policies for Emergency Response

Goal S 4: Effective County emergency response management capabilities.	
Topic	**Policy**
Emergency Response	Policy S 4.1: Ensure that residents are protected from the public health consequences of natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.
	Policy S 4.2: Support County emergency providers in reaching their response time goals.
	Policy S 4.3: Coordinate with other County and public agencies, such as transportation agencies, and health care providers on emergency planning and response activities, and evacuation planning.
	Policy S 4.4: Encourage the improvement of hazard prediction and early warning capabilities.
	Policy S 4.5: Ensure that there are adequate resources, such as sheriff and fire services, for emergency response.
	Policy S 4.6: Ensure that essential public facilities are maintained during natural disasters, such as flooding.

VI. Safety Element Implementation Programs

- Debris Management Plan
- At-Risk Properties Hazard Fund and Strategies
- Floodplain Management Plan Implementation and Update

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Boxes]

Wildland Fires and Climate Change

Recent studies indicate that climate change has resulted in wildland fires that last longer and occur more frequently. In 2007 and 2008 alone, wildland fires burned over 147,000 acres, destroyed 570 residences, and damaged an additional 42 residences in the unincorporated areas. In 2009, the Station Fire broke out in the Angeles National Forest, which burned nearly 160,000 acres and destroyed approximately 76 residences. This fire, the largest in recorded history for Los Angeles County, occurred months before the Santa Ana winds, which often exacerbate wildland fires in the fall and spring months. Appendix H contains descriptions of these and more recent wildfires in Los Angeles County.

Wildfire Preparedness Programs and Evacuation Guides

The following are guidelines for wildfire readiness for a variety of development and occupancy types:

County of Los Angeles Fire Department "Ready, Set, Go" Program

Santa Monica Mountains Fire Safe Alliance, "A Road Map to Fire Safety"

For more information, please visit the Fire Department web site at http://www.fire.lacounty.gov.

Community Wildfire Protection Plans

Community Wildfire Protection Plans are community-based collaborative plans developed by local stakeholders that identify and prioritize areas for hazardous fuel reduction treatments to protect natural resources, communities and infrastructure from wildfire. Applicable local governments, local fire departments, state forestry, and federal land management agencies agree to the plans, which are established under the umbrella of the County's Strategic Fire Plan. The County of Los Angeles Fire Department's Fire Plan Unit provides fire hazard reduction project design, development, planning and implementation for communities in Los Angeles County. Los Angeles County CWPPs include the following:

Santa Monica Mountains Community Wildfire Protection Plan:
http://www.nps.gov/samo/parkmgmt/upload/SMM_CWPP_02MAY2012_FINAL_v3.pdf

Community Emergency Response Team (CERT) Program

The Community Emergency Response Team (CERT) Program educates people about disaster preparedness for hazards that may impact their area, and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations. Using the training learned in the classroom and during exercises, CERT volunteers can assist others in their neighborhood or workplace following an event when professional responders are not immediately available to help. CERT members are also encouraged to support emergency response agencies by taking a more active role in emergency preparedness projects in their community.

For more information on the CERT Program, please visit the Fire Department web site at
http://www.fire.lacounty.gov/index.php/cert-program/..

Chapter 13: Public Services and Facilities Element

III. Introduction

As Los Angeles County continues to grow, the demand for public facilities and infrastructure will increase. This Element provides a summary of some of the major public services and facilities that serve the unincorporated areas, and establishes policies that guide the provision of public services and facilities.

The Public Services and Facilities Element promotes the orderly and efficient planning of public facilities and infrastructure in conjunction with land use development and growth. This Element focuses on services and facilities that are affected the most by growth and development: Drinking Water; Sanitary Sewers; Solid Waste; Utilities; Early Care and Education; and Libraries. The Element also discusses the key role of collaboration among County agencies in efficient and effective service provision and facilities planning.

This Element works in conjunction with the Los Angeles County Department of Public Works (DPW) Strategic Plan, which outlines service delivery goals for sanitary sewer, water supply, flood protection, water quality, garbage disposal, and traffic lighting; Integrated Waste Management Plan; Sewer System Management Plan; Library Strategic Plan; and other plans to address the provision of public services and facilities to the unincorporated areas.

II. Effective Service and Facilities Planning and Maintenance

Background

There are special development fees and legal requirements in place to address the provision of services or facilities and infrastructure, including school facilities fees, sewer connection mitigation fees, fire protection facilities fees, library facilities mitigation fees, and water supply assessments for large projects.

Issues

1. Development Fees

Many existing public facilities are operating at full capacity or are overburdened. In addition, many development fees and legal requirements that are intended to pay for infrastructure and services only apply to certain developments, such as subdivisions and projects that exceed a certain size threshold.

2. The Need to Effectively Track Development

In addition to fees, a comprehensive system is necessary to effectively track planned development and corresponding infrastructure and service needs. Furthermore, without adequate investment from the public sector to maintain and upgrade existing infrastructure, the costs of infrastructure improvements could make a project financially infeasible. Coordination among various County departments ensures that infrastructure is upgraded, as well as expanded in areas where the General Plan encourages development.

Goals and Policies for Effective Service and Facilities Planning and Maintenance

Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.	
Topic	**Policy**
Sufficient Infrastructure	Policy PS/F 1.1: Discourage development in areas without adequate public services and facilities.
	Policy PS/F 1.2: Ensure that adequate services and facilities are provided in conjunction with development through phasing or other mechanisms.
	Policy PS/F 1.3: Ensure coordinated service provision through collaboration between County departments and service providers.
	Policy PS/F 1.4: Ensure the adequate maintenance of infrastructure.
	Policy PS/F 1.5: Focus infrastructure investment, maintenance and expansion efforts where the General Plan encourages development.
	Policy PS/F 1.6: Support multi-faceted public facility expansion efforts, such as substations, mobile units, and satellite offices.
	Policy PS/F 1.7: Consider resource preservation in the planning of public facilities.

III. Drinking Water

Background

The County provides a continuous supply of clean water for everyday uses through a complex water management system, which consists of numerous water providers, water control boards and other agencies. A combination of local and imported water supplies is delivered through an intricate system of aqueducts, reservoirs, and groundwater basins.

Water Sources

Approximately 33 percent of the water supply comes from local sources, including surface water from mountain runoff, groundwater and recycled water. While local water supplies are the least costly, surface water and groundwater supplies fluctuate in response to variations in annual rainfall, contamination and effectiveness of conservation measures.

Water is imported into Los Angeles County from three sources: the Colorado River, the Bay Delta in Northern California via the State Water Project, and the Owens Valley via the Los Angeles Aqueduct. The Los Angeles Aqueduct primarily serves the residents and businesses of the City of Los Angeles.

For a description of local water sources and a discussion of water quality, please refer to the Conservation and Natural Resources Element. For description of the imported water sources, please refer to Appendix I.

Water Suppliers

Water services are provided by a complex network of water districts, water wholesalers and private companies that specialize in developing and improving water service for their customers. Most of the imported water utilized in the unincorporated areas is provided by the Metropolitan Water District, Castaic Lake Water Agency, Antelope Valley/East Kern Water Agency, Littlerock Creek Irrigation District and the Palmdale Water District. For a description of water suppliers, please refer to Appendix I.

Water Management Plans

In accordance with the California Urban Water Management Planning Act of 1983, every urban water supplier that annually serves 3,000 or more customers, or provides more than 3,000 acre-feet of water, must prepare and adopt an Urban Water Management Plan (UWMP). These plans contain a description and evaluation of water supplies, reclamation programs, and conservation activities. Based upon land use plans provided by local governments, population projections or other inputs, the UWMP calculates the projected water demand for the district and compares this demand against current and anticipated water supplies. These UWMPs, which are updated every five years, are provided to local governments to help inform decisions on development proposals.

UWMPs serve as building blocks for Integrated Regional Water Management Plans (IRWMPs), which define a clear vision and strategy for the sustainable management of water resources within a specific region delineated by one or more watersheds. Local and County UWMPs can be found ontheSouthernCaliforniaAssociationofGovernment'swebsiteathttp://www.scag.ca.gov/rcp/uwmp.htm.

Issues

Drought, pollution, population growth and land use affect the quantity and quality of local and regional water supplies. The climate in Los Angeles County is characterized by extended periods of dry weather and varying levels of rainfall, which range from an average of 27.5 inches per year in the San Gabriel Mountains to 7.8 inches in the Antelope Valley. The overall demand for water is projected to increase dramatically to 2035, and the cost, quality and availability of water will affect future development patterns.

1. Water Conservation

Los Angeles County needs to use its various sources of water wisely. Voluntary conservation measures by industries and residents have been successful in the past, particularly with regard to outdoor water use. Two thirds of residential water use is attributed to landscape maintenance, which makes conservation measures such as planting drought-tolerant, indigenous plants an important component of a water conservation policy.

The conservation of the water supply is a primary goal of the County. To reduce the County's dependence on imported water, County agencies are establishing various water conservation programs. One example from DPW is the creation of water reclamation projects and groundwater recharge facilities to capture stormwater runoff. Another effort by DPW is participation in a Water Augmentation Study, which is striving to make parcel-level groundwater recharge feasible. Additional actions include the Board of Supervisor's 2008 Countywide Water Supply and Conservation Alert. This resolution urges residents, businesses, and water purveyors to intensify water conservation efforts and directs all County departments to implement measures to achieve a 15 to 20 percent reduction in overall water demand.

The General Plan supports water conservation efforts that focus on curbing demand by reducing consumption through technological advances, such as aerators and motion sensors on low flush toilets and stalls, onsite gray water reclamation and dual plumbing; promoting xeriscaping; and organizing educational campaigns to discourage wasteful water consumption.

2. Increasing the Water Supply

Recycled water is used primarily for recharging groundwater aquifers through regional groundwater recharge operations and injection at seawater barriers. Other uses of recycled water include irrigating landscaping and supplying industrial processes. Recycled water provides a reliable and consistently high quality supply of water, but also requires additional infrastructure and modifications to regulations that govern the use of recycled water, before it can reach its full supply potential.

Several water agencies throughout Southern California, such as the Metropolitan Water District, Castaic Lake Water Agency and City of Los Angeles Department of Water and Power are taking steps to add desalinated water to their list of water supplies. Desalination, or removing salt from ocean water, has the potential to increase the local water supply, but is also energy-consumptive and costly.

Goals and Policies for Drinking Water

Goal PS/F 2: Increased water conservation efforts.	
Topic	**Policy**
Water Conservation	Policy PS/F 2.1: Support water conservation measures.
	Policy PS/F 2.2: Support educational outreach efforts that discourage wasteful water consumption.
Goal PS/F 3: Increased local water supplies through the use of new technologies.	
Topic	**Policy**
Water Supply	Policy PS/F 3.1: Increase the supply of water though the development of new sources, such as recycled water, gray water, and rainwater harvesting.
	Policy PS/F 3.2: Support the increased production, distribution and use of recycled water, gray water, and rainwater harvesting to provide for groundwater recharge, seawater intrusion barrier injection, irrigation, industrial processes and other beneficial uses.

IV. Sanitary Sewers

Background

Unlike combined sewer and stormwater drainage systems in many older cities throughout the country, the sanitary sewers and the stormwater/flood protection facilities in Los Angeles County are separate. The sanitary sewers convey sewage from lavatories and other plumbing fixtures in buildings and factories to a wastewater treatment facility where the effluent is treated before being discharged to the ocean or river. In the unincorporated areas, the Los Angeles County Sanitation Districts (LACSD), the Consolidated Sewer Maintenance District (CSMD), and municipal septic or wastewater systems all contribute to ensuring that the sanitary sewage system operates properly to protect public health.

Construction operations and the maintenance of facilities that collect, treat, recycle and dispose of sewage and industrial wastes is the responsibility of the LACSD. Local sewers connected to the LACSD's trunk sewer lines in the unincorporated areas are the responsibility of the CSMD. Sewer laterals connecting homes and businesses to local sewer lines are the responsibility of the homeowners for maintenance and repair.

The LACSD, which are a confederation of 24 independent districts, serve the wastewater and solid waste management needs of approximately 5.2 million people, cover over 800 square miles and service 78 cities and the unincorporated areas. As of 2005, the LACSD owned, operated and maintained 1,340 miles of sewers that conveyed 510 million gallons per day (gpd) of wastewater, 200 million gpd of which is recycled, to 11 wastewater treatment plants. The service areas for the County's sewer systems include the Joint Outfall System, which is a partnership of 17 of the 24 independent sanitation districts, the Santa Clarita Valley and the Antelope Valley.

DPW, on behalf of the CSMD, maintains 4,600 miles of main line sewers, 155 pumping stations, and four sewage treatment plants. The DPW Environmental Programs Division also permits and inspects industrial waste discharge into local sewers. The County Code requires that every business that disposes industrial wastewater obtain a permit. The Sewer System Management Plan (SSMP) controls and mitigates sewer sanitary overflows. For more information on the SSMP, please visit DPW's web site at http://dpw.lacounty.gov.

Issues

Sewer systems throughout the unincorporated areas are aging and require upgrades. The County does not plan for sewer infrastructure needs through long-range capital improvement planning, and instead addresses sewer infrastructure through their ongoing Condition Assessment Program utilizing their Accumulative Capital Outlay Program Funds.

In limited cases, primarily near the coast, the LACSD has accepted dry weather urban runoff into the sanitary sewer system to be treated along with sewage. To protect inland water bodies, the Los Angeles Flood Control District is evaluating the potential to construct more dry weather diversions, provided the sanitary sewers have the ability to accept the dry weather flows.

Goals and Policies for Sanitary Sewers

Goal PS/F 4: Reliable sewer and urban runoff conveyance treatment systems.	
Topic	**Policy**
Sanitary Sewers	Policy PS/F 4.1: Encourage the planning and continued development of efficient countywide sewer conveyance treatment systems.
	Policy PS/F 4.2: Support capital improvement plans to improve aging and deficient wastewater systems, particularly in areas where the General Plan encourages development, such as TODs.
	Policy PS/F 4.3: Ensure the proper design of sewage treatment and disposal facilities, especially in landslide, hillside, and other hazard areas.
	Policy PS/F 4.4: Evaluate the potential for treating stormwater runoff in wastewater management systems or through other similar systems and methods.

V. Solid Waste

Background

The County has the largest solid waste management system in the country. There are seven major solid waste landfills, four minor solid waste landfills and two waste-to-energy facilities, as shown in Figure 13.1. In 2012, the County's service area generated, on average, 58,987 tons per day (tbd) of solid waste. As available space for landfills becomes scarce and more distant, and as local landfills reach their holding capacity, cities and counties have been mandated to more effectively manage waste and reduce their solid waste volume.

Figure 13.1: Landfills Map

Annual Report for the Los Angeles County Integrated Waste Management Plan (IWMP)

Assembly Bill 939, also known as the California Integrated Waste Management Act of 1989, mandates local jurisdictions to meet a diversion goal of 50 percent by 2000, and thereafter. In addition, each county is required to prepare and administer a countywide IWMP. This plan is comprised of the County's and the cities' solid waste reduction planning documents, plus an Integrated Waste Management Summary Plan (Summary Plan) and a Countywide Siting Element (CSE). In order to assess a local jurisdiction's compliance with AB 939, the Disposal Reporting System was established to measure the amount of disposal from each local jurisdiction and determine if it has met the goals.

For Los Angeles County, the County's Department of Public Works is responsible for preparing and administering the Summary Plan and the CSE. These documents were approved by the County, a majority of the cities containing a majority of the cities' population, the Board of Supervisors, and the Department of Resources, Recycling, and Recovery (CalRecycle).

The existing Summary Plan, approved by CalRecycle on June 23, 1999, describes the steps to be taken by local agencies, acting independently and in concert, to achieve the mandated state diversion rate by integrating strategies aimed toward reducing, reusing, recycling, diverting, and marketing solid waste generated.

The existing CSE, approved by CalRecycle on June 24, 1998, identifies how, for a 15-year planning period, the County and the cities would meet their long-term disposal capacity needs to safely handle solid waste generated that cannot be reduced, recycled, or composted. As this 15-year planning cycle has come to an end, DPW, in consultation with the Integrated Waste Management Task Force, completed the preparation of the draft CSE update in November 2012.The draft revised CSE and its environmental document will undergo a review and approval process in compliance with numerous statutory and regulatory requirements. This includes CEQA review, and review and approval by jurisdictions in Los Angeles County, the Board of Supervisors, and CalRecycle. The goal is to complete the entire revision process, disseminate the document for public comments, and submit the final draft CSE and the environmental document to CalRecycle by 2016.

In addition, DPW prepares an annual report to summarize the changes that have taken place since the approval of the existing Summary Plan and the existing CSE by the jurisdictions and CalRecycle. The Annual Report consists of Section D: Summary Plan Assessment and Section E: Siting Element Assessment. The other sections pertaining to individual jurisdictions, namely, Sections A, B, C, and H, are included in a separate annual report from each jurisdiction.

The 2012 Annual Report includes in-depth assessments of the County's disposal capacity needs, detailed updates on the remaining permitted in-County disposal capacity, and the County's strategy for maintaining adequate disposal capacity through 2027.

Provided certain assumptions are met, the 2012 Annual Report demonstrates that the County would meet the disposal capacity requirements of AB 939 through a multi-pronged approach, which includes successfully permitting and developing proposed in-County landfill expansions, utilizing available or planned out-of-County disposal capacity, developing necessary infrastructure to facilitate exportation of waste to out-of-County landfills, and developing conversion and other alternative technologies. Additionally, by continuing to enhance diversion programs and increasing the countywide diversion rate, local jurisdictions in Los Angeles County may further ensure adequate disposal capacity is available to serve the needs of the residents and businesses through the planning period.

Solid Waste Information Management System (SWIMS)

SWIMS, a one-stop Internet portal for the public and solid waste industry, allows the County to collect and manage information regarding the collection, disposal, and recycling of approximately 58,987 tons of trash generated each day in one of the largest jurisdictions in the nation, the County of Los Angeles. Data collected through SWIMS allows the County to evaluate the waste stream, and thus design appropriate waste reduction programs and strategies. Even broader in scope, SWIMS is also a tool by which information about solid waste management activities is made readily available to the public, empowering people to make environmentally sustainable choices in managing waste. The SWIMS web site is located at http://www.LACountySWIMS.org.

Roadmap to a Sustainable Waste Management Future

The County unincorporated areas have already achieved and surpassed California's 50 percent waste diversion mandate. However, with available landfill space in Los Angeles County decreasing, the County must be proactive and develop innovative policies and procedures for waste management that further reduce the County's reliance on landfills.

On October 21, 2014, the Board approved the Roadmap to a Sustainable Waste Management Future Interdepartmental Sustainable Waste Management Future, which involves rethinking the approach to waste management, and rethinking the characterization of waste and which materials might be suitable for reuse and recycling. A traditional waste hierarchy seeks to implement waste reduction measures, reuse practices, recycling and composting techniques, and waste-to-energy processing to handle a large portion of the typical waste stream. Even when this is done effectively, a large volume of waste is still disposed at landfills. The Roadmap creates a new vision to significantly reduce, and someday eliminate, waste. As a result, an increasing amount of materials previously characterized as waste will be reduced, reused, or recycled, and a decreasing volume of material will remain for disposal.

The Roadmap focuses on the unincorporated areas, as well as regional/countywide and County operations (ie., County-owned and/or operated facilities and offices, and County-sponsored events), and the following four strategies: 1) Programs and Services; 2) Measuring Results; 3) Facilities and Infrastructure; and 4) Outreach and Education. These four strategies establish a framework for the implementation of specific initiatives.

Through the implementation of the Roadmap, the County's goal is to maximize the recovery of products, materials, and energy from waste that would otherwise be disposed of at landfills, and achieve the following:

- 80% diversion from landfills by 2025
- 90% diversion from landfills by 2035
- 95+% diversion from landfills by 2045

Issues

1. Waste Generation and Disposal Capacity

The major issues regarding waste management include the growing amounts of waste being generated and disposed of; a shortage of solid waste processing facilities; and strong public opposition for new solid waste management facilities. Table 13.1 lists the remaining permitted capacity for landfills as of December 31, 2012 in accordance with the County IWMP, 2012 Annual Report, which was released in August 2013.However, since the release of the 2012 Annual Report, the Puente Hills Landfill, which is the largest landfill in Los Angeles County, closed on October 31, 2013. As a result, a significant percentage of the County's solid waste may have to be exported to facilities out of Los Angeles County, which may result in increased costs and environmental impacts. This concern is exacerbated by the projected increase in waste generation to approximately 84,839 tpd by 2027.

Table 13.1: Remaining Permitted Disposal Capacity for Los Angeles County Existing Landfills (As of December 31, 2012)

Landfill	Maximum Daily Capacity (Tons)	Estimated Remaining Permitted Capacity (Million Tons)*	Remaining Life (Years)**
Antelope Valley	1,800	16.91	30
Burbank	240	2.95	41
Calabasas	3,500	5.51	16
Chiquita Canyon	6,000	3.97	2
Lancaster	3,000	12.27	13
Pebbly Beach	49	0.09	16
Puente Hills	13,200	6.10	1***
San Clemente	10	0.04	20
Scholl Canyon	3,400	3.41	16
Sunshine Canyon (City/County)	12,100	74.37	20
Whittier (Savage Canyon)	350	3.56	13

Total	**43,649**	**129.20**	**188**

Source: Los Angeles County Integrated Waste Management Plan, 2012 Annual Report, August 2013.

*Estimated remaining permitted capacity based on landfill owner/operator responses in a written survey conducted by the Los Angeles County Department of Public Works in May 2013, as well as a review of site specific permit criteria established by local land use agencies, local enforcement agencies, California Regional Water Quality Control Board, and the South Coast Air Quality Management District.

**Landfill remaining life is based on 1) the 2012 average daily disposal tonnage, 2) maximum permitted capacity as of December 31, 2012, or 3) the facility's permit restrictions as of December 31, 2012.

***The Puente Hills Landfill closed on October 31, 2013.

As detailed in the 2012 Annual Report for the County IWMP, a shortfall of permitted solid waste disposal capacity in Los Angeles County is anticipated under current conditions. The use of out-of-County facilities therefore plays a critical role in meeting the County's disposal needs. For instance, the LACSD acquired the Mesquite Regional Landfill in Imperial County in 2002 and completed construction of all infrastructures on December 24, 2008. The Mesquite Regional Landfill has a permitted capacity of 20,000 tpd and a 100-year lifespan. The Mesquite Regional Landfill, together with other existing out-of-County landfills, could potentially handle up to approximately 21,350 tpd of waste from Los Angeles County.

To facilitate the use of out-of-County facilities, it is also important to expand transfer and processing infrastructure and develop a waste-by-rail system. Specifically, nearly all solid waste is currently transported to disposal sites in the metropolitan area by truck. However, as public opposition to siting new or expanding existing disposal facilities near urban areas has grown, sites farther from the Los Angeles Basin have become more desirable, despite the costs associated with longer transport distances. For some sites, such as the Mesquite Regional Landfill, which is 210 miles from Downtown Los Angeles, rail transport is an efficient means to transport solid waste to remote disposal sites. Transitioning to remote disposal of solid waste that involves rail transport requires new infrastructure and is currently being developed by LACSD. The Waste-by-Rail system will provide long-term disposal capacity to replace local landfills as they reach capacity and close. The starting point of the Waste-by-Rail System is the Puente Hills Intermodal Facility (PHIMF), located near the Puente Hills Materials Recovery Facility. Residual waste from materials recovery facilities and transfer stations located throughout Los Angeles County will be loaded onto rail carts at the PHIMF, and transported via rail to the Mesquite Regional Landfill for disposal.

2. Promoting Alternative Technologies

Faced with a dwindling landfill capacity, as well as the impacts of climate change, the County must evaluate sustainable options for solid waste management, such as conversion technologies and landfill gas to energy facilities. LACSD currently has three landfill gas to energy facilities in Puente Hills, Scholl Canyon, and Calabasas that generate electrical power from landfill gas. Landfill gas is created through the natural decomposition of refuse and has about half the energy content of natural gas. Conversion technologies refer to a wide variety of biological, mechanical, chemical, and thermal (excluding incineration) processes that convert residual post recycled municipal solid waste and other organic feedstock into useful products, alternative fuels and clean and renewable energy. Additionally, utilizing conversion technologies locally could effectively enhance recycling, reduce pollution and greenhouse gas emissions, extend the life of existing landfills and reduce dependence on fossil fuels. Conversion technologies are currently being explored by the County in conjunction with the Alternative Technology Advisory Subcommittee, which is comprised of a diverse group of representatives from public agencies, industry, community, and other experts in the field of conversion technologies. As a part of the Southern California Conversion Technology Demonstration

Project, on April 20, 2010, the Board of Supervisors approved agreements to develop three conversion technology demonstration projects, and instructed DPW to begin evaluating options for the development of commercial-scale projects. For more information, please visit the Southern California Conversion Technology Demonstration Project web site at http://www.socalconversion.org.

3. Trash Hauling

For many years, residential and commercial solid waste collection services within the unincorporated areas were provided through an open-market system, whereby each resident/business directly arranged for trash collection services with no County involvement. However, the open market system was unable to adapt to changes in federal and state laws regarding waste reduction, changing public attitudes toward protecting the environment and increasing consumer demands for better service. In response, DPW gradually implemented the Garbage Disposal District and Residential Franchise System to replace the open-market system.

These systems provide many benefits such as quality customer services, enhanced recycling programs, environmental workshops, free bulky item pick-ups, and annual clean-up events. These systems are designed to provide uniform service standards by haulers operating in each area. The system provides each community with the flexibility needed to create services that will most benefit area residents. These features are modified to reflect feedback received through survey cards, community meetings, and telephone calls. This interactive process allows the County to tailor each contract or agreement to meet the needs voiced by each community. The system also benefits the community by limiting the wear and tear on County streets, assists the County in meeting the State's waste reduction mandate, and reduces the need for new landfills.

Garbage Disposal Districts

Garbage Disposal Districts (GDDs) are designated areas within the unincorporated portion of Los Angeles County where trash collection and recycling services are provided to both residents and businesses by a private waste hauler who contracts with DPW. Service fees are collected from each property owner through the property tax bill. To date, the County has established seven GDDs in the central Los Angeles and Malibu communities.

Residential Franchise System

In a residential franchise system, an agreement is awarded to an exclusive waste hauler to provide trash and recycling services through automated cart collection to all single family residences and duplexes within specific unincorporated communities. Currently, there are 21 residential franchise areas. DPW may replace the remaining residential open-market system areas, including the Antelope Valley in the near future.

Commercial Franchise System

As of July 2012, all unincorporated area residents, businesses and multifamily residents that utilize dumpster and/or roll-off trash collection service are served by a non-exclusive franchise system. In the non-exclusive franchise system, the County allows solid waste collection services to be provided by private waste haulers, but requires haulers to enter into a non-exclusive commercial franchise agreement with the County. Under this non-exclusive franchise system, waste haulers must provide a higher level of service standards and customers have a choice of more than one waste hauler because the system is open to competition to all haulers that enter into the agreement. The waste haulers deal directly with the public and businesses in competing for customers.

Goals and Policies for Solid Waste

Goal PS/F 5: Adequate disposal capacity and minimal waste and pollution.	
Topic	**Policy**
Waste Management	Policy PS/F 5.1: Maintain an efficient, safe and responsive waste management system that reduces waste while protecting the health and safety of the public.
	Policy PS/F 5.2: Ensure adequate disposal capacity by providing for environmentally sound and technically feasible development of solid waste management facilities, such as landfills and transfer/processing facilities.
	Policy PS/F 5.3: Discourage incompatible land uses near or adjacent to solid waste disposal facilities identified in the Countywide Integrated Waste Management Plan.
Waste Diversion	Policy PS/F 5.4: Encourage solid waste management facilities that utilize conversion and other alternative technologies and waste to energy facilities.
	Policy PS/F 5.5: Reduce the County's waste stream by minimizing waste generation and enhancing diversion.
	Policy PS/F 5.6: Encourage the use and procurement of recyclable and biodegradable materials.
	Policy PS/F 5.7: Encourage the recycling of construction and demolition debris generated by public and private projects.
	Policy PS/F 5.8: Ensure adequate and regular waste and recycling collection services.
	Policy PS/F 5.9: Encourage the availability of trash and recyclables containers in new developments, public streets, and large venues.

VI. Utilities

Background

The County's utility infrastructure, information and communication networks are layered with utility rights of way and properties that contain tower structures, substations, generating plants, pipelines, storage fields, valve stations, wells, radio and television studios and other equipment facilities. In the unincorporated areas, most electric, natural gas, or telecommunication services are delivered by private service providers. However, the County recognizes the need to define and ensure adequate levels of service in these areas as Los Angeles County continues to grow.

Issues

1. Energy Conservation

The unincorporated areas are faced with considerable strain on existing electricity and power delivery systems. As a result of increased electricity usage and prolonged hot weather conditions due to climate change, brown outs, or losses of power and forced reductions in electricity delivery, occur periodically throughout the State. There is a need to upgrade the County's power grid and service capabilities, and to educate the public on energy conservation. Upgrades and enhancements of local services and strong energy conservation programs can add to the reliability and efficiency of the overall utility network, and contribute to the long-term quality of life for residents and businesses.

Similarly, the region's substantial population growth is outpacing the development of new natural gas supplies, much of which is imported from out of state. In addition to heating and cooking, natural gas currently provides 73 percent to 90 percent of the energy used to generate electricity, especially during peak times. As the population continues to grow, the County must focus on the development of new natural gas supplies, including locally produced natural gas and liquefied natural gas (LNG); upgrading and enhancing the region's natural gas infrastructure system to improve reliability and efficiency; strong energy conservation programs; and renewable energy alternatives.

A major contributor to the long-term energy independence of Los Angeles County will be the increased production of energy from renewable sources. The production of energy from renewable sources onsite can also ensure the ongoing operations of primary health, safety and civic infrastructure during times of disruption. The County is a participant in the Statewide Renewable Energy Transmission Initiative (RETI), which identifies sites that are suitable for various types of renewable energy sources, including geothermal, solar, wind and biomass. This issue is discussed in greater detail in the Conservation and Natural Resources Element.

2. Siting Facilities

It is important for the County to address land use compatibility in siting infrastructure facilities that are necessary for the delivery of energy and information resources. Siting utility infrastructure and facilities is difficult, as many parts of the unincorporated areas are built out with little room for facility expansion. In certain areas, there is public opposition to the expansion or placement of utility infrastructure. In the case of new natural gas storage facilities, there is added difficulty in finding locations with specific geologic conditions to ensure efficiency and reliability.

Goals and Policies for Utilities

Goal PS/F 6: A County with adequate public utilities.	
Topic	**Policy**
Utility Infrastructure	Policy PS/F 6.1: Ensure efficient and cost-effective utilities that serve existing and future needs.
	Policy PS/F 6.2: Improve existing wired and wireless telecommunications infrastructure.
	Policy PS/F 6.3: Expand access to wireless technology networks, while minimizing visual impacts through co-location and design.
	Policy PS/F 6.4: Protect and enhance utility facilities to maintain the safety, reliability, integrity and security of utility services.
	Policy PS/F 6.5: Encourage the use of renewable energy sources in utility and telecommunications networks.
	Policy PS/F 6.6: Encourage the construction of utilities underground, where feasible.
	Policy PS/F 6.7: Discourage above-ground electrical distribution and transmission lines in hazard areas.
	Policy PS/F 6.8: Encourage projects that incorporate onsite renewable energy systems.
	Policy PS/F 6.9: Support the prohibition of public access within, and the limitation of access in areas adjacent to natural gas storage facilities and oil and gas production and processing facilities to minimize trespass and ensure security.
	Policy PS/F 6.10: Encourage utility siting to be localized and decentralized to reduce impacts; reduce transmission losses; promote local conservation by connecting users to their systems more directly; and reduce system malfunctions.

VII. Early Care and Education Facilities

Background

The County's role in developing and managing educational facilities and programs is limited. However, the Los Angeles County Office of Education (COE), which is the country's largest regional education agency, serves as an intermediary between the local school districts and the California Department of Education. The COE is guided by a seven member County Board of Education, which is appointed by the Board of Supervisors. The COE provides a vision statement and strategic opportunities for educational facility development to coordinate the assessment of facility needs and the construction of schools that fall to individual school districts. For more information, please visit the COE web site at http://www.lacoe.edu.

Another role that the County plays in coordinating in public school facilities is through the County subdivision approval process, in which developers are required to assess the need for, and in some cases provide, land for the construction of public schools within their development. Development impact fees, based on the size of a development, are distributed to the appropriate school district for the construction of school facilities before the County issues any building permits.

Issues

Land Use Coordination

At a minimum, the California Education Code requires public school districts to notify the local planning agency when siting new public schools to determine if the proposed site conforms to the General Plan. In addition, school districts consult with the County through the CEQA process.

As educational facilities are major components of, and significantly impact neighborhoods, it is essential for the County to work proactively with school districts and other educational providers to ensure the coordination between land use planning and school facilities planning. Joint-use school facilities, as opposed to stand-alone institutions, can benefit communities and create operational and economic efficiencies. School facilities should be accessible and open to multiple users, including students and the greater community.

As discussed in the Land Use Element and the Economic Development Element, there is a shortage of early care and education facilities in Los Angeles County. According to the 2011 Los Angeles County Child Care and Development Needs Assessment, the availability of licensed care facilities—both centers and family child care homes—varies by age. For infant/toddlers, there are sufficient facilities to accommodate only one out of every seven children in working families; for preschool-age children, there are three spaces for every four children; for school-age children requiring after school care while parents work, there is one licensed space for every three children. Half-day preschool options are available for seven out of every ten eligible children of three and four years who are able to use a half-day program. For more information on 2011 Child Care Needs Assessment, please visit the CEO Office of Child Care web site athttp://childcare.lacounty.gov.

Goals and Policies for Early Care and Education Facilities

Goal PS/F 7: A County with adequate educational facilities.	
Topic	**Policy**
Early Care and Educational Facilities	Policy PS/F 7.1: Encourage the joint-use of school sites for community activities and other appropriate uses.
	Policy PS/F 7.2: Proactively work with school facilities and education providers to coordinate land use and facilities planning.
	Policy PS/F 7.3: Encourage adequate facilities for early care and education.

VIII. Libraries

Background

The County of Los Angeles Public Library is one of the largest public library systems in the country. In fiscal year 2011-2012, the Library staff circulated 16.5 million items to 3.1 million cardholders; answered over 8 million reference questions; provided 18,000 programs to 500,000 children, teens, and adults; and assisted the public with three million internet sessions on the Library's public access computers. The Library system is a special fund County department operating under the direction of the Board of Supervisors. Figure 13.2 identifies the County libraries and service planning areas.

Figure 13.2: Libraries Map

Supplementing the 7.5 million volume book collection, the Library also offers magazines, newspapers, microfilm, government publications, specialized reference materials, magazines, audio-visual media, adult, teen and children programs, downloadable audio and e-books, and internet access, including WiFi.

For more information on the Library system, please refer to the County of Los Angeles Library Strategic Plan, which can be viewedathttp://www.colapublib.org/aboutus/strategic.html.

Library Facilities Mitigation Fees

The County applies a library facilities mitigation fee to new residential developments in the unincorporated areas. This fee is intended to mitigate the significant adverse impacts of increased residential development on the Library system. The library facilities mitigation fee is based on the estimated cost of providing the projected library facility needs in each library planning area. Please refer to Section 22.72.030 of the County's Zoning Code for the library facilities mitigation fee in each of the seven library planning areas.

The mitigation fee in each planning area is reviewed annually by the County Librarian, in consultation with the County Auditor Controller, and is adjusted every July 1. According to the Zoning Code, no adjustment shall increase or decrease the fee to an amount more or less than the amount necessary to recover the cost of providing applicable library facilities and services.

The provisions of the Library Facilities Mitigation Fee Ordinance are applicable to residential projects only. All library facilities mitigation fees received by the County are deposited into a special library capital facilities fund (one for each library planning area), and expended solely for the purposes for which the fees were collected.

Issues

Library Facility Needs

The majority of the County's 86 libraries are undersized and under-stocked to meet the service needs of current and projected populations served by the Library system. A study conducted by the Library in April 2001 determined that many of the County's libraries do not meet basic facility and service planning guidelines. The current guideline for library facility space is a minimum of 0.5 gross square foot per capita. The 2001 study determined that 89 percent of existing libraries will not meet that standard in the year 2020. In addition, the study determined that by 2020, 77 percent of existing libraries will not meet the Library's current service level planning guideline of 2.75 items (books and other library materials) per capita.

Many existing County libraries are located in areas with little or no new residential development, and therefore, there are no mitigation fees or other reliable sources of capital funding available to replace or expand them. A permanent source of funding to replace or expand existing facilities is needed to meet the projected population growth in the Library's service areas over the next two decades.

Goals and Policies for Libraries

Goal PS/F 8: A comprehensive public library system.	
Topic	**Policy**
Library System	Policy PS/F 8.1: Ensure a desired level of library service through coordinated land use and facilities planning.
	Policy PS/F 8.2: Support library mitigation fees that adequately address the impacts of new development.

IX. Public Services and Facilities Element Implementation Program

- Planning Area Capital Improvement Plans
- Water Conservation Ordinance
- Agricultural Water Conservation Program

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Box]

Constituent Service Centers and Environmental Service Centers

Due to geographic spread and demographic characteristics, there is a need to establish a number of local centers that can address specific constituent needs and requests, in close proximity to homes and places of work. Constituent Service Centers provide high quality, public services at conveniently located facilities. Specific County department presence will be tailored to each community's needs, including but not limited to community meeting rooms, libraries, senior community centers, and field offices for various County departments such as Consumer Affairs, Sheriff, Planning, and Building and Safety. Additional services could include Adult Protective Services, and space for community-based organizations. Constituent Service Centers include the East Los Angeles Civic Center, and two in Florence-Firestone and Lennox.

Environmental Service Centers are Constituent Service Centers that provide assistance to the community on environmental initiatives, such as the County's Green Building Program, AB 811 and the PACE program. County staff is available to answer questions about retrofits, water conservation, and the County's Green Building policies. An Environmental Service Center is located in West Athens-Westmont.

Chapter 14: Economic Development Element

IV. Introduction

From its origins as a sparsely populated agricultural area, Los Angeles County has developed into a national and global economic center. Today, Los Angeles County's economy is diverse and fast-changing, and faces global competition for economic resources.

The Economic Development Element outlines the County's economic development goals, and provides strategies that contribute to the economic well-being of Los Angeles County. The overall performance of the economy and economic development efforts strongly impact land use and development patterns. Through the implementation of this Element, the County is planning for the economic health and prosperity of its physical and social environments, and planning strategically for the future economy.

The Element works in conjunction with the Los Angeles County Strategic Plan for Economic Development, which was adopted by the Los Angeles County Board of Supervisors in 2010. The Strategic Plan can be found at the following link: http://lacountystrategicplan.com/.

II. Background

Los Angeles County's historical growth pattern of sprawling single family development, with scattered commercial and industrial uses, has strongly influenced its economy.

The first major economic sectors to emerge in Los Angeles County were land development, real estate and the entertainment industry, which continue today to play a major role in the regional economy. In addition, the aerospace industry was responsible for some of the major growth spurts in Los Angeles County. By the 1960s, the aerospace industry employed hundreds of thousands of workers, which accounted for nearly half of the manufacturing jobs in Los Angeles County at that time.

During the 1990s, major economic, social, and environmental trends impacted Los Angeles County's economy, and in particular, its manufacturing sector. The end of the Cold War reduced defense spending, which significantly impacted the aerospace and related manufacturing industries. In addition, with free trade agreements and globalization, local, regional, state and national level economies merged with the global economy, and competition from overseas producers with cheaper labor and production costs prompted an exodus of manufacturing jobs from Los Angeles County.

The present economy of Los Angeles County is technology-driven, including biomedical, digital information technology, and environmental technology. Another key economic driver is the creative economy, which includes industries involved in the production of cultural, artistic, and design goods and services. Specifically, the fusion between technology and creativity, such as innovations in interactive media, plays an important role in the region's economic growth. International trade, aerospace, petroleum, and tourism continue to drive the economy, as well as media production, finance, telecommunications, law, healthcare, and transportation.

Employment Land

Appendix J identifies and analyzes employment land within the unincorporated areas. The study organizes the employment land into Employment Protection Districts, Industrial Flex Districts, and Industrial Opportunity Areas.

Employment Protection Districts

Employment Protection Districts are economically-viable industrial and employment-rich lands, with policies to prevent the conversion of industrial land to non-industrial uses. These areas, which are identified in Figure 14.1, are mapped as Employment Protection District Overlays in the General Plan Land Use Policy maps. For more information on the Employment Protection District Overlay, please refer to the Land Use Element.

Industrial Flex Districts

Industrial Flex Districts are industrial areas that provide opportunities for non-industrial uses and mixed uses, where appropriate, but also light industrial or office/professional uses that are compatible with residential uses. As opportunity areas, as discussed in Chapter 5: Planning Areas Framework of the General Plan, Industrial Flex Districts inform future industrial land use considerations in community-based planning efforts.

Industrial Opportunity Areas

Industrial Opportunity Areas are economically viable industrial and employment-rich lands located in an unincorporated community that has an adopted community-based plan, or is in the process of creating one. It is highly recommended that during the creation or update of the community-based plan, these areas be mapped as Employment Protection Districts.

Figure 14.1: Employment Protection Districts Policy Map

Economic Sectors and Jobs

Countywide

Los Angeles County has a diverse economic base, with multiple industry clusters spread across both incorporated and unincorporated areas. Although many of the largest employers are located in incorporated areas, the unincorporated areas support the regional economy with public sector jobs and services, manufacturing jobs, housing construction, and tourist destinations such as beaches and theme parks. Due to the difficulty in isolating economic drivers in the non-contiguous, geographically dispersed unincorporated areas, this section first presents key employment sectors for Los Angeles County, followed by an analysis by Planning Area.

Despite significant losses, Los Angeles County is still the largest manufacturing center in the country. It is also home to the ports of Los Angeles and Long Beach, which combined, is considered the sixth busiest port in the world.

Increased population growth has transformed the economic landscape, and growth in small and minority-owned businesses have contributed to offsetting the decline in manufacturing jobs. Although Los Angeles County has gained jobs in recent years, the total number of jobs has only recently rebounded to 1990 levels.

According to the Los Angeles County Economic Development Corporation (LAEDC), the largest growth sectors countywide in terms of jobs are professional, scientific and technical services, health services, and retail trade. Los Angeles County continues to have a net decrease in durable goods manufacturing and construction jobs. The LAEDC identifies the following key leading industry clusters:

- Entertainment
- Fashion
- Aerospace and Analytical Instruments
- Trade (transportation, logistics, and distribution)
- Education and Knowledge Creation
- Publishing and Printing
- Metal Manufacturing
- Biomedical
- Tourism

Planning Area

Antelope Valley Planning Area

The largest economic sectors in the Antelope Valley include government, retail services, and manufacturing, in large part due to the major concentration of aerospace research and development activity. Agriculture is also a major contributor to the economy in the Planning Area. Government employs nearly 20 percent of all employed persons in the Planning Area. The Planning Area has a number of comparative advantages that present unique opportunities for economic growth and development in the region. These include the availability of vast expanses of flat, affordable land; substantial plans for major transportation infrastructure projects; and the prospect of locating an "inland port" to handle trade near the Palmdale Regional Airport.

Coastal Islands Planning Area

Over 80 percent of Santa Catalina Island has been set aside by the Catalina Island Conservancy, which is dedicated to conservation, recreation, education, and research programs. The primary economic driver on Santa Catalina Island is tourism and recreational-related activities, such as boating and fishing. The majority of visitor activities in the unincorporated areas occur in the Two Harbors area.

East San Gabriel Valley Planning Area

Over the past decades, the San Gabriel Valley has lost jobs in manufacturing, while gaining jobs in the international trade sectors. The biggest economic sectors in the Planning Area are professional and business services, retail, educational and health services, and international trade. The major educational institutions in the Planning Area include California State Polytechnic University Pomona, University of La Verne, Azusa Pacific University and the Claremont McKenna Colleges, which are

important economic generators in the area. The Planning Area includes Employment Protection Districts in South Walnut and Avocado Heights.

Gateway Planning Area

The Planning Area has evolved from an expanse of citrus orchards to one of the most important and busiest industrial and logistical hubs in the country. This region contains the largest concentration of manufacturing jobs in Los Angeles County, and is a hub for wholesale trade, warehousing and logistics. It is also home to three heavily-industrial cities: Commerce, Santa Fe Springs, and Vernon. Although manufacturing is still a large part of the Planning Area's economy, over the years, the number of manufacturing jobs has declined. In addition, the Planning Area lacks high-tech industries and modern office and industrial space. Furthermore, because it is an older region, the Planning Area lacks large blocks of developable land, which constrains the growth of the region's industries. The Planning Area includes Employment Protection Districts in Rancho Dominguez, South Whittier-Sunshine Acres, West Whittier-Los Nietos, and North Whittier.

Metro Planning Area

The Planning Area has seen significant losses in the manufacturing sector over the last 20 years, and little to no overall economic or job growth. It is estimated that current unemployment rates in some unincorporated communities are very high. The California Employment Development Department estimates Florence-Firestone to have a 25 percent unemployment rate, and West Athens-Westmont to have a 15 percent unemployment rate. The East Los Angeles area has had very little recent economic growth, and experienced a significant loss of manufacturing, which historically had been a stable economic presence in the area, in addition to government employment and educational and health services. The Planning Area includes an Employment Protection District in West Rancho-Dominguez.

San Fernando Valley Planning Area

The Planning Area is a major center for entertainment, tourism, professional and business services, education, health services, and manufacturing. California State University Northridge and four community colleges work closely with the private sector to train the workforce of more than 750,000 people. The Universal Studios Specific Plan area is unincorporated land that houses the Universal Studios filming lot and is a large economic center within the Planning Area. The Planning Area includes an Employment Protection District in Lopez Canyon.

Santa Clarita Valley Planning Area

The Planning Area contains a wide variety of retail, office, industrial, medical, and entertainment centers that provide employment, goods, and services to both regional and local market areas. The Planning Area is experiencing an increase in jobs, but not enough economic growth to achieve a jobs-housing balance. Many people in the region still commute great distances for their employment. The largest economic sectors in the Planning Area are professional and business services, with several growing industries including biomedical, entertainment, technology, and aerospace manufacturing, due to the availability of land and facilities, as well as a qualified workforce. From 1992 to 2005, almost 40,000 new jobs were created in the Planning Area. Between 2000 and 2005, job growth averaged about 3,900 jobs per year. Most of this job growth occurred in the manufacturing, services, retail trade, and construction sectors.

Santa Monica Mountains Planning Area

Visitor-serving commercial and recreational uses are the primary economic activities in the Planning Area. The primary land uses in the Santa Monica Mountains are open space and low-density single family residential. Nodes of local-serving commercial activity are scattered among a few locations in the Santa Monica Mountains.

South Bay Planning Area

The Planning Area is home to numerous offices for company headquarters, research and development facilities, manufacturing, health care, telecommunications, financial services, and international trade businesses. Educational institutions, such as California State University-Dominguez Hills and several community colleges provide training and degree programs to meet the needs of industry. The Planning Area includes Employment Protection Districts in West Carson and Lennox.

West San Gabriel Valley Planning Area

The West San Gabriel Valley Planning Area is employment-rich with several major employment centers, such as Jet Propulsion Laboratory and the California Institute of Technology. The Planning Area is also located near Downtown Los Angeles and is the gateway for goods movement infrastructure heading east. In addition, opportunities exist in some older commercial corridors to facilitate mixed use development and pedestrian amenities. The Planning Area includes Employment Protection Districts in Whittier Narrows and East Pasadena-East San Gabriel.

Westside Planning Area

The economy of the Planning Area is based on the entertainment industry, leisure and hospitality services, professional services, entrepreneurialism and design. The petroleum industry also supports many jobs, contributing significantly to the local economy. The Planning Area has very low office vacancy rates and high rents. Major education institutions and employers include the University of California Los Angeles and Loyola Marymount University.

Tools for Economic Development

In 1982, the Board of Supervisors consolidated three entities—the Housing Authority, Community Development Department, and the Redevelopment Agency—to form the Los Angeles County Community Development Commission (CDC). The CDC's Economic and Housing Development Division is responsible for implementing the County's economic development policies and programs in the unincorporated areas. In addition, the CDC is responsible for administering Board of Supervisors Policy No. 5.125, Economic Development Business Incentive Program, on a countywide basis. In addition, the County established the Los Angeles County Office of Small Business (OSB)to assist small businesses and connect them with government opportunities, and serve as a source of information on procurement opportunities, certification, financing, and technical assistance.

Below is a description of the economic development programs administered by the County. More information can be found on the CDC's web site at http://lacdc.org. More information on the Los Angeles County OSB can be found at http://doingbusiness.lacounty.gov/osb.htm.

Small Business Development Tools

In addition to assisting small businesses and connecting them with government opportunities, OSB serves as the County Procurement Technical Assistance Center, which is funded by the U.S.

Department of Defense to help small businesses obtain contracts with prime defense contractors. In addition, OSB provides workshops and training for small businesses on how to sell goods and services to the County, the State, the federal government, and other public agencies in Southern California.

The Business Technology Center of Los Angeles County (BTC) is another example of the County's efforts to assist start-up, early stage small businesses to grow. The BTC, which is a project of the CDC, is dedicated to the development of high technology firms through business management assistance, technical assistance, and the coordination of available financial resources. The 40,000 square-foot facility, which is located in unincorporated Altadena, offers key business support services to emerging technology organizations, including access to capital and business professional mentorship from a large volunteer group of seasoned executives. The BTC houses companies with specialties such as software development, bio-informatics, cutting edge sensors and the commercialization of federal laboratory technologies. Tenants of the BTC have attracted over $200 million in capital and created over 1,800 jobs.

The CDC also operates business lending programs that have provided more than $125 million in business loans and created or retained over 3,000 jobs. The CDC offers loans for a variety of purposes—large and small businesses, commercial or industrial. These include the County Business Loan Program, County Expansion Loan Program, County Utility Loan Program, County Float Loan Program, Section 108 Loan Guarantee Program, and the County Technology Loan Program. These loan programs are designed to assist businesses that cannot obtain conventional bank financing.

Revitalization Tools

The CDC administers a comprehensive economic development program focused primarily on services to the unincorporated areas. The CDC also administers the Los Angeles Urban County CDBG Program for the unincorporated areas and 49 participating cities. CDBG funds have been used for many economic development activities, including land assembly and relocation to accommodate business expansion in low and moderate income areas.

The CDC also administers a Community Business Revitalization (CBR) Program, which provides grants and technical services to businesses and property owners to improve or rebuild storefront façades. Older commercial corridors in low and moderate income areas like those assisted through the CBR Program are vulnerable to vacancy and decay as retail trends have evolved over recent decades. Over 400 businesses have been assisted since the CBR Program's inception.

The CDC also assists in the creation of Business Improvement Districts (BIDs) to revitalize commercial corridors by working with local chambers of commerce and business associations to provide the technical assistance and capacity building necessary to pursue the BID process. Following the adoption by a vote of local property owners, BIDs can provide business-related improvements; image enhancement; promotions; physical amenities; maintenance (i.e., sidewalk cleaning, litter/bulky item pick-up, etc.); professional services (i.e., activities/services consultant); supplemental public services (i.e., security, other maintenance, etc.); and related management and operational services that directly benefit businesses and real property located in the BID, as determined by the property owners.

III. Issues

1. Economic Growth

Despite the continued population growth of Los Angeles County, total job numbers have only reached 1990 levels in recent years. Major growth areas include low-wage service and retail jobs. The rise in low-wage jobs is projected to continue.

Also, a significant portion of the economic growth in the last 15 years has been in the informal economy, as well as the growth of small and minority-owned businesses. However, these businesses often have limited growth potential due to limited access to capital and expansion opportunities.

2. Attracting Target Industries

The following industry clusters have the most potential to contribute to a broad-based, stable, and expanding economy for Los Angeles County:

Entertainment

Los Angeles County is home to an internationally-recognized entertainment industry and is the site of major television and movie production activities, video game and digital entertainment production, and an increasing number of fine arts establishments and venues. To prevent the relocation of entertainment production to other states and overseas, the County must continue to pursue state incentives to keep entertainment production in California and in the Los Angeles region. In addition, the County must address the potential conflicts between communities, filming and production, and balance the needs of the entertainment industry with community concerns.

Fashion

The fashion industry workforce in Los Angeles County is more than twice the size of the fashion industry workforce in New York's fashion district. Big name designers operate alongside small, independent shops. Many fashion education programs support these activities, including the Fashion Institute of Design and Merchandising and the Otis College of Art and Design.

Aerospace and Analytical Instruments

With research universities, private think tanks, a NASA outpost, and research and development facilities, Los Angeles County lays claim to a sizeable share of the high-tech marketplace. Employment in the aerospace cluster is concentrated in the manufacturing of aerospace products and parts. The analytical instruments cluster supports the aerospace industry through the production of aerospace instrumentation. Both clusters demand a highly-skilled workforce and offer wages that are double the average of wage in Los Angeles County.

Trade

The ports of Los Angeles and Long Beach, along with the Los Angeles International Airport (LAX), handle more cargo than any other region in the country, and trade and logistics continues to be a growing economic sector in Los Angeles County. Infrastructure improvements related to trade and goods movement should be prioritized to maintain Los Angeles County's competitive hold on this sector. Additionally, expanding trade and goods movement can benefit Los Angeles County. For example, facilitating the creation of an "inland port" near the Palmdale Regional Airport would alleviate congested conditions in the ports and airports in the southern portion of Los Angeles County, while also strengthening the employment base in the northern portion of Los Angeles County. For an inland port to succeed, economical routes must be identified and supported by infrastructure improvements.

Education and Knowledge Creation

There are approximately 120 accredited institutions in Los Angeles County that confer associates, bachelors, and graduate degrees. Three universities—California Institute of Technology (Caltech), University of California Los Angeles, and University of Southern California—received more than $2.06 billion in research funding from federal agencies in 2010.

Publishing and Printing

Los Angeles County is a hub for publishing and printing activity, including book and directory publishing, music publishing, internet publishing and broadcasting, and web search portals.

Metal Manufacturing

Los Angeles County is the nation's number one manufacturing center in terms of employment. Los Angeles County is known for its expertise in advanced materials, such as composites, ceramics, polymers, and the latest innovations in nanomaterials. The presence of the aerospace industry has been a motivating factor in the research, development, and deployment of new materials and processes.

Biomedical

Health sciences and biomedical research represent a growing industry that provides high-paying jobs. Los Angeles County cannot capitalize on this sector without addressing the lack of high-tech industrial or office space. Land use policy can increase the amount of land available for this target industry.

Tourism

Los Angeles County must continue to promote its cultural icons, preserve its scenic and recreational opportunities, and expand its tourist destinations. A countywide umbrella organization is needed to focus initiatives into regional efforts that effectively promote a "Los Angeles" brand.

In addition to the above, Los Angeles County should focus efforts on growing the nascent, but fast-emerging innovation-based sectors, including digital media, clean technology (e.g., electric vehicles and renewable energy), and advanced materials.

3. Impact of Land Use Policy on the Economy

Land designated for industrial and employment-rich uses is needed to retain and attract businesses and jobs. Los Angeles County's historic growth patterns and land use policies have resulted in the conversion of much of the available industrial land for non-industrial uses. The remainder of industrial and office space is not sufficient to meet the needs of existing and emerging industries. The County's employment preservation strategy for the unincorporated areas, which is designed to discourage the conversion of areas with significant industrial uses to non-industrial uses, is described in the Land Use Element.

Incompatible land uses in and around industrial areas also hinder economic growth. For example, allowing residential uses in industrial areas increases tensions between the business community and new residents, as industrial activities often produce noise, odor, smells, traffic congestion, and other environmental impacts. Industrial land also needs to be buffered to avoid conflicts, and industrial uses must be thoughtfully incorporated into community-based planning efforts to address potential environmental justice impacts.

4. Impact of Mobility Infrastructure on the Economy

Mobility is a key component of economic development, as businesses and industry require efficient road, rail, shipping, and air networks to transport goods and services, and as employees and residents need access to employment centers. Much of the transportation infrastructure of Los Angeles County is strained, aging and overcapacity. Traffic congestion, compounded by aging infrastructure, is an economic obstacle for local businesses. Major transportation networks, such as the freeways leading out of the ports of Los Angeles and Long Beach, are congested. The aging and congested transportation infrastructure will continue to inhibit development efforts and business activities unless it is upgraded. The Mobility Element contains information about planning efforts underway to increase goods movement efficiency in the unincorporated areas and the region.

The County's approach to transportation infrastructure must advance economic success, but also be sustainable. The Alameda Corridor, which allows for the transport of freight on a dedicated rail line to inland transfer yards, is an example of a project that improves the transportation infrastructure, while mitigating the environmental impacts of trucking and trade activities. In addition to infrastructure for goods movement, an adequate public transit system is essential for moving and retaining a vital workforce in an environmentally sensitive manner. The Transit Oriented Districts, as described in the Land Use Element, provides opportunities for more housing and commercial uses next to existing Metro stations.

5. Revitalization

To achieve broad-based economic prosperity, local governments must stimulate business activity in neighborhoods that have limited economic opportunities. As revitalization activities can attract major new industries and businesses, the County can focus its resources on improving economically-distressed communities within the unincorporated areas.

In recent years, the State has eliminated redevelopment agencies and the local enterprise zone program to address budget issues. The elimination of these programs has reduced the resources and authority available to the County to conduct economic development activities. Several legislative proposals have emerged to return economic development tools to local governments, although none have been enacted as of 2013. Should the State act to create new economic development programs and incentives for local governments, the CDC will be prepared to make recommendations to the Board of Supervisors as to how to utilize any new resources or authority made available.

In addition, the CDC will actively pursue new financing strategies for real estate transactions that would promote job creation. Options may include creating a New Market Tax credit entity to provide investment capital for low-income communities throughout the Los Angeles County. Furthermore, the CDC will increase efforts to work collaboratively with philanthropic institutions to provide flexible financing for economic development.

6. The Role of Education in Economic Development

Los Angeles County is in need of more training and workforce development programs, as much of the blue collar workforce is not prepared to meet the job demands of the future. The continued globalization of the economy means that local workers with limited education have to compete with an increasingly educated global workforce. In addition, federal and state government cuts to education put Los Angeles County at greater risk of losing its competitive edge.

According to the LAEDC, over 50 percent of the working-age population in Los Angeles County has low levels of literacy, with a high percentage lacking a high school diploma or a GED. The industries

that will provide the most economic returns require a workforce with a knowledge base and advance technical training. Furthermore, continuing demographic shifts over the next two decades will dramatically change the region's population, particularly the prime working age population. While the baby boom generation retires, a steady influx of low-skilled workers will comprise of an increasingly large portion of the labor pool.

A skilled and dedicated workforce is important for sustaining Los Angeles County's economic competitiveness, and invigorating economic activity through the reinvestment of wages. Fostering a diverse and cutting-edge industry base requires a synergistic relationship between companies and a well-developed workforce to advance technologies.

Multiple federal, state, county and local agencies aim to ensure that Los Angeles County's workforce is well-trained. The Workforce Investment Board (WIB) and the County's Community and Senior Services (CSS) are leading efforts to strengthen coordination of inter-governmental and inter-agency programs with America's Job Centers of California (AJCC). Coordinating with the AJCC system, a comprehensive career center network established by the federal Workforce Investment Act with locations in Los Angeles County, will better meet current and prospective needs of employers and jobseekers. The County's workforce development system will align and place greater emphasis on employment, training and business services in high-growth industry sectors and in-demand occupations.

Consistent with the state WIB and Governor's strategic priorities to achieve a more competitive workforce, sustain economic prosperity, and strengthen the workforce development pipeline between education, training providers, job seekers and employers, the County's WIB and the Board of Supervisors adopted in 2013 a Five-Year Local Area Strategic Plan to better address the skills gap of the current and future workforce in the region. This forward-looking plan embraces strategic workforce development goals including: a partnership with the state Employment Development Department to deliver integrated services; unified AJCC branding that highlights the County's commitment and investment; a commitment to devoting 25% of resources to training in high-growth sectors; enhanced regional leadership and partnership with six other WIBs in Los Angeles County as well as with other stakeholders in education, and economic and workforce development; an emphasis on older and out-of-school disconnected youth; year-round subsidized work experience opportunities; and a greater investment in STEM (Science, Technology, Engineering and Math) initiatives.

Workforce development programs will be strategic and demand-driven in targeted industries, while preparing in and out-of-school youth for post-secondary education and career success.

Most importantly, the County's workforce development and training programs will increasingly focus on meeting the needs of emerging and growth industries, especially in high-growth sectors such as green/clean energy, transportation and logistics, health care, biotech, construction, and hospitality and tourism. Utilizing labor market intelligence information from the LAEDC, the WIB has approved funding for six Sector Intermediaries to convene and engage employers and business to identify the employment and training needs in these key sectors, and align training and case management resources to ensure job seekers are aware of, and competitive for sustainable employment and careers in the existing regional economy.

More information about the Los Angeles County Workforce Investment Board's Strategic Plan for 2013-2017 can be found on the Worksource California web site at:http://www.worksourcecalifornia.com/information/wib_LAcounty.htm.

7. The Need for Centralized Economic Development Planning

The LAEDC collects and distributes information on growth and market trends on a regional basis, encourages cooperation among jurisdictions to implement long-term goals for shaping the economy, and advocates for a more cohesive and unified economic development strategy. As a first crucial step to developing a unified countywide strategy, the LAEDC has worked with more than 1,080 stakeholders, including representatives from the public, private, business, government, labor, education, environmental, and community-based organizations, to develop the Strategic Plan for Economic Development in Los Angeles County. The Board of Supervisors adopted the Los Angeles County Strategic Plan for Economic Development in 2010.

Additionally, the County needs to proactively address business and economic development needs, including the provision of financial and regulatory incentives to attract jobs and target industries, and foster public-private partnerships.

8. Competitive Disadvantages

For Los Angeles County, increased global competition has resulted in tighter profit margins for economic sectors, and more cost-effective markets for labor and materials have made production methods more mobile and international. A study by the Los Angeles Economic Roundtable shows that in Los Angeles County, a business environment characterized by high production costs, high utility costs, strict environmental regulations, and a perceived indifference to the importance of industrial uses, are contributing to the relocation of industries to areas where incentives are attracting industries and businesses. One primary example of the effect of global and regional competition on Los Angeles County's economy is the regional trend of job losses in the manufacturing sector. Although local leaders have made significant efforts to retain manufacturing activities in the region, manufacturing jobs are relocating overseas, to inland areas and to other states due to lower production costs.

Another disadvantage for economic development is the high cost of doing business in Los Angeles County. For example, Los Angeles County has higher utility and energy costs compared to other regions, and the energy network may not be sufficient to meet the demands of both businesses and residential customers during peak energy periods. For the unincorporated areas in particular, many sites are not suitable for intense development, as they are dedicated open space or located within a fire hazard zone, flood zone, or other hazard area. For its part, the County is working to reduce the time and uncertainty associated with the permitting process by coordinating project reviews across departments in "one-stop" meetings with applicants.

Furthermore, industrial land and office space in the unincorporated areas are in need of retrofits and upgrades to accommodate target industries and attract high-paying jobs. More aggressive strategies and infrastructure improvements must be implemented to attract business and industry to limited, but key locations in the unincorporated areas.

Furthermore, the shortage of affordable housing and early care and education, have major impacts on the workforce as well as on the regional economy and economic development efforts. High housing costs are a deterrent to attracting an educated middle class labor force. Regional attention to building housing for all income levels is a primary factor in the success of the County's economic future. Early care and education is not only extremely important to working families, it is important to the communities in which they live and work. A report in 2008entitled *The Economic Impact of Early Care and Education Industry in Los Angeles County* indicates that the early care and education industry generates $1.9 billion annually and provides over 65,000 full-time equivalent jobs in Los Angeles County. The report concludes that Los Angeles County's future economic productivity depends upon investment in quality early care and education as a critical industry. The report also indicates: "The short-term economic benefits to working families and their employers are apparent.

Equally important are the long-term benefits in human capital—children, their school readiness, and the productivity of the future workforce." A copy of the report is available on the CEO Office of Child Care web site at http://childcare.lacounty.gov.

IV. Goals and Policies

Goal ED 1: An economic base and fiscal structures that attract and retain valuable industries and businesses.	
Topic	**Policy**
Target Industries	Policy ED 1.1: Encourage a diverse mix of industries and services in each Planning Area.
	Policy ED 1.2: Encourage and foster the development of the renewable energy economic sectors.
	Policy ED 1.3: Encourage public-private partnerships to support the growth of target industries.
	Policy ED 1.4: Encourage the expansion and retention of targeted industries and other growth economic sectors, such as the entertainment industry, aerospace industry, agriculture, transportation/logistics, healthcare, biomed/biotech, hospitality and tourism.
County Incentives for Business	Policy ED 1.5: Provide quality, responsible, and business-friendly municipal services to attract and retain businesses and employees.
	Policy ED 1.6: Develop, advance, and promote competitive advantages for economic development and growth.
	Policy ED 1.7: Identify opportunities to lower the costs of doing business in Los Angeles County.
	Policy ED 1.8: Promote Los Angeles County as a national and international center for business, global trade, and development.
Goal ED 2: Land use practices and regulations that foster economic development and growth.	
Topic	**Policy**
Industrial Land	Policy ED 2.1: Protect industrial lands, especially within Employment Protection Districts, from conversion to non-industrial uses.
	Policy ED 2.2: Utilize adequate buffering and other land use practices to facilitate the compatibility between industrial and non-industrial uses.
Business and Environmental Justice	Policy ED 2.3: Ensure environmental justice in economic development activities.
	Policy ED 2.4: Ensure high standards of development and encourage environmentally sustainable practices in economic development activities.
	Policy ED 2.5: Encourage employment opportunities to be located in proximity to housing.
	Policy ED 2.6: Encourage community-serving uses, such as child care centers and personal services, to be located in proximity to employment centers.
	Policy ED 2.7: Incentivize economic development and growth along existing transportation corridors and in urbanized areas.

Streamlined Permit Processing	Policy ED 2.8: Streamline the permit review process and other entitlement processes for businesses and industries.
Agriculture	Policy ED 2.9 Support zoning incentives for the operation of farms in Agricultural Resource Areas (ARAs).
Goal ED 3: An expanded and improved infrastructure system to support economic growth and development.	
Topic	**Policy**
Infrastructure Improvements	Policy ED 3.1: Utilize capital improvement plans to prioritize infrastructure investments.
	Policy ED 3.2: Support the use of public-private partnerships to develop, fund, and deliver critical infrastructure.
	Policy ED 3.3: Work with state agencies dedicated to financing important critical infrastructure and economic development projects.
Goal ED 4: Enhanced revitalization activities.	
Topic	**Policy**
Economic Development Strategies	Policy ED 4.1: Develop a range of financial incentives and programs that encourage development and business growth.
	Policy ED 4.2: Support the development of community-level economic development strategies in line with the Los Angeles County Strategic Plan for Economic Development.
	Policy ED 4.3: Support the development of small business assistance and entrepreneurial programs that are focused on management, financial planning, and technology application.
Infill Development	Policy ED 4.4: Incentivize infill development in urban and suburban areas that revitalizes underutilized commercial and industrial areas.
	Policy ED 4.5: Direct resources to economically distressed areas to spur revitalization activities.
	Policy ED 4.6: Retrofit and reuse vacant and underutilized industrial and commercial sites in urban and suburban areas for emerging and targeted industries.
	Policy ED 4.7: Support expedited permitting for green building retrofits.
Goal ED 5: A skilled and educated workforce.	
Topic	**Policy**
Education	Policy ED 5.1: Attract and retain highly-skilled graduates, in particular, graduates of science and engineering programs.

	Policy ED 5.2: Support and create collaborative educational programs that address specific under-employed populations and workforce needs in targeted areas.
	Policy ED 5.3: Encourage outreach efforts to educational and community-learning institutions to expand workforce education programs.
	Policy ED 5.4: Expand functional literacy and English as a Second Language (ESL) programs.
	Policy ED 5.5: Support linked programs that align high schools with community colleges and four-year institutions.
	Policy ED 5.6: Engage employers earlier in the education and workforce development process to ensure work-readiness and a smooth transition from school or training to work placement.
Job Training	Policy ED 5.7: Ensure that businesses have enough skilled workers to meet their workforce needs.
	Policy ED 5.8: Prepare, train, and educate job seekers and incumbent workers to find and advance in high-value, high-wage jobs with built-in career ladders.
	Policy ED 5.9: Promote the attraction, retention and expansion of commercial and industrial firms that provide employment improvement opportunities for unskilled and semi-skilled workers.
	Policy ED 5.10: Initiate vocational training programs that provide the skills necessary for participation in the labor force.
	Policy ED 5.11: Collaborate with the private sector to identify growing workforce needs and link training initiatives to the needs of target industries.
	Policy ED 5.12: Establish employer assistance initiatives to expand skilled trades training and vocational education for high demand occupations.
	Policy ED 5.13: Play a leadership role in convening and coordinating the activities of key regional workforce development system stakeholders, including the six other WIBS that operate within Los Angeles County, as well as community colleges, businesses, K-12 institutions, philanthropic partners and others.
Goal ED 6: Collaborative efforts to implement coordinated economic development activities.	
Topic	**Policy**
Coordinated Economic Development	Policy ED 6.1: Encourage a collaborative inter-agency and inter-jurisdictional environment to align economic development activities and promote information sharing on economic trends, business cycles, best practices, and resources.
	Policy ED 6.2: Analyze emerging trends for policy modification, and maintain and update accurate labor force, market trends, and other important economic data.
	Policy ED 6.3: Strengthen cooperation with private sector organizations, economic development organizations, and community level business groups.

V. Economic Development Element Implementation Programs

- Economic Development Incentives Program
- Economic Development Outreach and Coordination Initiative
- Economic Development Land Use Strategy

For descriptions of these programs, please refer to Chapter 16: General Plan Implementation Programs.

[Text Box]

Economic Development Partners

The Los Angeles County Economic Development Corporation (LAEDC) was established in 1981 by the County as a public-private partnership with the mission to attract, retain, and expand businesses and jobs. LAEDC publishes semi-annual economic forecasts, and informs economic development by compiling data and research from a variety of sources, and providing analyses of key employment sectors and sub-regions of economic activity. More information on LAEDC can be found on their web site, located at http://www.laedc.org.

Part III: General Plan Implementation

Chapter 15: General Plan Maintenance

I. General Plan Annual Progress Report

Section 65400 of the Government Code requires that the County prepare a general plan annual progress report (annual report) on the status of General Plan implementation. The annual report is prepared by the Department of Regional Planning (DRP), presented to the Los Angeles County Regional Planning Commission and the Board of Supervisors, and submitted to the California Office of Planning and Research and the California Department of Housing and Community Development by April 1 of each year.

The annual report is the County's mechanism for comprehensively reporting on the following: 1) program implementation; 2) effectiveness of major policies; 3) updates to datasets; and 4) map maintenance.

1. Program Implementation

The annual report shall outline the County's progress toward implementing the General Plan implementation programs. A description of milestones, accomplishments, as well as any impediments will be included for each program.

2. Effectiveness of Major Policies

The annual report shall include information on the effectiveness of major policies. The table below outlines the monitoring strategy:

Policy Area	Monitoring Method
Transit Oriented Districts (TODs)	Report annually on the status of the TODs. Include: • A summary of new development within the TODs approved by DRP, including mixed-use projects; and • A summary of infrastructure improvements, including but not limited to pedestrian, bicycling, and streetscape improvements.
Significant Ecological Areas (SEAs)	Report biennially on the status of the County's SEAs. Include: • A summary of new development within SEAs approved by DRP; • A public comment process for accepting suggestions on improving the SEA Program, and its components. • The overall status of biological functions within each SEA, if known; • Identification of any new techniques or methods of conservation planning which are, or could, be utilized to enhance the SEA Program • Assessment of the necessity for new SEA studies and any resulting scientific studies undertaken on SEAs;

	• Recommendations for any modifications to the SEA Program, including General Plan goals and policies, SEA boundaries and the SEA Ordinance; • Identification of lands within individual SEAs as priority habitats or areas for protection; • A description of any ongoing partnerships with conservation agencies and other stakeholders; • A current map of SEA lands that are protected in perpetuity through deed-restrictions, conservation easements, etc.; and • The Director's conclusion as to the overall successes and challenges of the SEA Program in implementing General Plan goals and policies.
Employment Protection Districts (EPDs)	Report annually on the status of the EPDs. Include: • A summary of new development within the EPDs approved by DRP, including new industrial uses, as well as an analysis on the conversion of any industrial lands to non-industrial uses.
Agricultural Resource Areas (ARAs)	Report annually on the status of the ARAs. Include: • A summary of new development within the ARAs approved by DRP, including an analysis on the reduction or expansion of agricultural uses in the ARAs; • A comparison of the agricultural land uses countywide based on data from the California Department of Conservation and the Los Angeles County Agricultural Commissioner/Weights and Measures; and • Recommendations for any modifications to the ARA boundaries.
Oak Tree Preservation	Report annually on the status of the loss of oak trees.

3. Dataset Updates

The General Plan includes various maps and figures that rely on datasets that are continually updated. The annual report shall outline information on new data that impacts General Plan maps and figures. As new datasets become available, the following maps will be updated administratively:

- Mineral Resource Zones, as programs such as the State's mineral land use classification project are updated with new and expanded information over time. The County is required to recognize data transmitted by the State Mining and Geology Board in the General Plan within 12 months of receipt, per the Public Resources Code.
- Seismic and Geotechnical Hazard Zones
- Flood Hazard Zones
- Tsunami Hazard Areas
- Sea Level Rise Impact Areas
- Fire Hazard Severity Zones

The Special Management Areas Policy Map and the Hazard, Environmental and Resource Constraints Map may also be updated administratively, if the changes are a result of new datasets that are applied to the aforementioned maps.

4. Map Maintenance

Lastly, certain policy maps may need to be amended annually to reflect new public lands and open space acquisitions. These changes will require a plan amendment. The annual report will outline plan amendment recommendations to be initiated by the DRP after the completion of the annual report.

The following policy maps will be reviewed annually and updated as needed:

- Land Use Policy Maps: Update based on changes to Public and Semi-Public (P) and Natural Resources (OS-C, OS-PR, OS-NF, OS-BLM, and W) land use categories.

- Open Space Resources Policy Map: Update to reflect new lands that have been dedicated permanently for open space conservation purposes, as well as land acquired for parks and recreation.

II. General Plan Updates

The County shall undergo a comprehensive General Plan Update every 10 years. The General Plan Update shall include a concurrent update to the zoning ordinance and zoning map, as needed, to ensure consistency with the General Plan. Individual elements shall be updated in accordance with the statutory deadlines specified in the Government Code. Updating a General Plan is a comprehensive process that ensures consistency with other countywide agency plans, and should include stakeholder input.

Chapter 16: General Plan Implementation Programs

I. Introduction

The Government Code requires that upon adoption of a general plan, a planning agency shall "investigate and make recommendations to the legislative body regarding reasonable and practical means for implementing the general plan."

II. Organization

The General Plan programs, outlined below, are organized by General Plan element and are designed to address the overall policy objectives identified in the General Plan. Each program identifies lead and partner agencies; however, they are not exclusive, and new partners can be added, as needed. The programs also include a timeframe and are categorized based on level of priority. The highest priority programs should be initiated within the first two years of the adoption of the General Plan. Programs that are designated as ongoing represent actions that must be addressed on a regular basis for General Plan implementation.

III. Funding

The General Plan programs guide the development of work programs for County departments. They also inform the budget process and will be used to set funding priorities. The schedules and tasks listed in the implementation program are based on adequate funding being secured through a joint effort undertaken by all departments and agencies. If funding is not secured, the implementation steps and/or timeframes may need to be modified. To supplement department budgets, County staff will also work to secure grants, as needed, for program implementation.

Program No.	Program Description	General Plan Goals and Policies	Lead and Partner Agencies	Timeframe
LU-1	**Planning Areas Framework Program** The General Plan serves as the foundation for all community-based plans, such as area plans, community plans, and coastal land use plans. Area plans focus on land use and other policy issues that are specific to the Planning Area. The Planning Areas Framework Program shall entail the completion of an area plan for each of the 11 Planning Areas. Area plans will be tailored toward the unique geographic, demographic, and social diversity of each Planning Area; however, at a minimum, area plans shall be developed using the following guidelines: • Involve major stakeholders, including but not limited to residents, businesses, property owners, County departments, regional agencies, and adjacent cities. • Explore the role of arts and culture, and consider beautification efforts. • Analyze the transportation network, and assess the transportation and community improvement needs. Utilize the street design considerations outlined in the Mobility Element as a tool for street improvements that meet the needs of all potential users, promote active transportation, and address the unique characteristics of the Planning Area. • Review and consider the identified opportunity areas and Conceptual SEAs, as applicable. • Develop a land use policy map that considers the local context, existing neighborhood character, and the General Plan Hazard, Environmental and Resource Constraints Map. • Consider the concurrent development of areawide zoning tools. • Update specific plans and zoning ordinances, as needed, to ensure consistency and plan implementation. At a minimum, each area plan shall consist of the following components: 1) a comprehensive policy document with area-specific elements, as needed, that incorporates community-based	Land Use Element: Goal LU 2	Lead: DRP Partners: DPW, CEO, DPH, CDC, DPR, Arts Commission, Fire	Years 1-2

	plans as chapters; 2) a land use policy map that utilizes the General Plan Land Use Legend; 3) a zoning map that is consistent with the area plan; 4) a capital improvement plan developed in partnership with the Department of Public Works (see Planning Area Capital Improvement Plans Program); and 5) an environmental review document that uses the General Plan Programmatic EIR as a starting point to assess the environmental impacts of the area plan. The creation of new community plans will be reserved for those communities in the unincorporated areas that are identified through the area plan process as having planning needs that go beyond the scope of the area plan. Community plans, as well as coastal land use plans, shall be incorporated as chapters of area plans.			
LU-2	**Transit Oriented District Program** Prepare a TOD specific plan, or similar mechanism, for each TOD. The goals of TOD specific plans are to: 1) increase walking, bicycling, and transit ridership and reduce vehicle miles traveled (VMTs); 2) facilitate compact, mixed use development; 3) increase economic activity;4) facilitate the public investment of infrastructure improvements; and 5) streamline the environmental review process for future infill development projects. The implementation of the TOD Program should, include the following: • Preliminary Research and Analysis: The TOD plans will be informed by the completion of preliminary research and analysis that will analyze existing conditions, parking supply and demand, and infrastructure supply and demand. • Stakeholder Outreach: In addition to the background research and analyses, the TOD plan will be informed by a comprehensive stakeholder outreach strategy. This strategy should consider input from residents and County staff and set priorities for transportation, housing, open space, and public safety. The TOD plan should also consider the local context and existing neighborhood character. • Informed by the preliminary research and stakeholder outreach, the TOD plan should, at a minimum, include the following: • General Plan Land Use Policy Map: Land uses within TODs should support active transportation, discourage automobile use, strategically focus compact development, and encourage a mix of housing types and commercial uses. • TOD plan, which will include: 1. Zoning Amendments: Prepare a zoning consistency analysis and consider both	Land Use Element: Goals LU 4, LU 5; Policies 1.11, 1.12, 1.13, 1.14, 1.15. Mobility Element: Goal M 5 Public Services and Facilities Element: Policy 1.5 Economic Development Element: Policies: 2.5, 2.7, 3.1, 4.4	Lead: DRP Partners: DPW, Metro, Arts Commission, CDC	Years 1-2

	map and text amendments to ensure consistency with the land use policy map. 2. Design Guidelines: Incorporate guidelines applicable to the built environment that promote livability. 3. Mobility Strategy: Identify pedestrian, bicycle, and automobile routes and multimodal connections, particularly the first-last mile connections to the transit stop. Street infrastructure improvements should examine the street design considerations outlined in the Mobility Element. The strategy may also include new cross-sections to encourage active transportation and ensure the safety of all users. This strategy should also incorporate a strategy for parking management, such as the reduction or removal of minimum parking requirements for specific areas and the exploration of shared parking opportunities or parking benefit districts. Lastly, explore opportunities to better coordinate light rail, bus, and County shuttle transit services. 4. Economic Development Strategy: Develop a strategy to promote economic development and redevelopment. This should include working with the CDC to attract needed industries and services. 5. Capital Improvement Plan: Identify specific infrastructure improvements (i.e., sewer, transportation, waste management, stormwater, public water, and open space) and outline a financing plan. • California Environmental Quality Act (CEQA) Document: Complete the appropriate CEQA document that will substantially reduce the environmental review needed for subsequent projects, in particular future infill development and public infrastructure projects in the TOD.			
LU-3	**Airport Land Use Compatibility Plans** Develop the County's airport land use compatibility plans.	Land Use Element: Policy LU 7.6	Lead: DRP Partner: DPW	Years 1-2
LU-4	**Growth Management Program** Develop a growth management program for the unincorporated areas that does the following: • Explore the feasibility of implementing a program that uses infrastructure and service levels as a threshold for development and permitting; and • Explore the feasibility of establishing greenbelts or other growth management	Land Use Element: Goal LU 3	Lead: DRP Partners: DPW	Years 1-2

	strategies in urbanized areas.			
LU-5	**Civic Art Program** The County Civic Art Policy requires certain capital development projects, either wholly or partially funded by the County, to dedicate one percent of the design and construction cost to public art projects on the site. Explore the expansion of this policy, including the cost implications to County capital projects, and support the management of the County's art collection.	Land Use Element: Goal LU 10	Lead: Arts Commission Partner: CEO	Year 1-2
LU-6	**Transfer of Development Rights Program** • Explore the feasibility of a Transfer of Development Rights (TDR) Program in order to direct growth and development away from valuable open space areas to identified infill areas. • Identify natural resource, rural and agricultural areas, including Agricultural Resource Areas (ARAs), and portions of the Significant Ecological Areas (SEAs) with high priority resources as sending areas. • Identify potential receiving areas, such as TODs and vacant and underutilized sites, in urban areas. • Consider partnering with other local jurisdictions to expand the scope of the TDR Program. Consider establishing a pilot program with the City of Santa Clarita. • Prepare an ordinance that outlines applicability and procedures for the TDR Program. • Establish or identify a County entity to coordinate the sales and transactions of TDR.	Land Use Element: Goals LU 3, LU 4	Lead: DRP Partners: CEO, DPR, Assessor, DPW	Years 1-2
LU-7	**Adaptive Reuse Ordinance** Prepare an Adaptive Reuse Ordinance within the context of, and in compliance with, existing building codes that considers the following: • The conversion of older, economically distressed or historically-significant buildings into multifamily residential developments, live-and-work units, mixed use developments, or commercial uses.	Land Use Element: Policies LU 4.1, LU 4.2 Economic Development Element: Policies ED 4.4, 4.5	Lead: DRP Partner: DPW	Years 3-5

	• Incentives to expedite the rehabilitation and redevelopment of structures in older communities, and reduce vacant space in commercial areas.			
LU-8	**Art and Cultural Resources Program** Explore the feasibility of provisions for incorporating public art and other cultural amenities in new private development. Also examine the development of an in-lieu fee option.	Land Use Element: Goals LU 10	Lead: DRP Partner: Arts Commission	Year 3-5
LU-9	**Community Design Guidelines** Create design guidelines to preserve and enhance the character-defining features of all unincorporated communities.	Land Use Element: Goals LU 10	Lead: DRP Partners: DPW, Arts Commission	Years 6-10
LU-10	**Early Care and Education Program** In conjunction with the goals, strategies and objectives of the Strategic Plan for Child Care and Development for Los Angeles County, as adopted by the County Child Care Planning Committee, and the Child Care Policy Framework, as adopted by the Board of Supervisors: • Prepare an ordinance that considers the following within the unincorporated areas: 1. Barriers due to zoning regulations and costly permit fees. 2. Regulatory and other incentives, based on the conclusions and recommendations of the County's Child Care Planning Committee and other agencies in *The Economic Impact of the Early Care and Education Industry in Los Angeles County*, January 2008. These could include incentives to developers, such as fee reductions, waiver or modification to development standards, and streamlined permit review, to include child care within their projects, particularly within affordable housing developments, mixed use developments and projects that connect child care services to transit corridors. • Develop an education program that includes: 1. Engagement with the development community about the need/demand for child care services. 2. Technical assistance and training to child care providers on the development of child care facilities.	Land Use Element: Policies LU 5.4, 5.5, 5.6 Public Services and Facilities Element: Policies 7.1, 7.2, 7.3 Economic Development Element: Policy ED 2.6	Lead: CEO, Office of Child Care Partners; DRP, LACOE	Years 6-10
LU-11	**Military Influence Areas Overlay Ordinance** Prepare an ordinance to identify, coordinate and assist in resolving potential land use conflicts within Military Operation Areas (MOAs) and High Risk of Adverse Impact Zones	Land Use Element: Goal LU 8	Lead: DRP	Years 6-10

	(HRAIZs) to ensure that new development is compatible with military operations, safeguard mission training and testing requirements, support military readiness, and enhance safety for military personnel and persons on the ground. The ordinance should consider the following: • The establishment of an MOA and HRAIZ Overlay in which proposed developments are regulated; • Provisions to ensure that all uses are compatible with military operations within the MOA and/or HRAIZ Overlay; • Review procedures for all proposed development projects within the MOAs and/or HRAIZs that could impact military operations, such as uses that produce electromagnetic interference, frequency spectrum interference, height obstructions, glare, smoke, dust, and steam.			
M-1	**Parking Ordinance** • Prepare a study that assesses the applicability of parking requirements in all unincorporated areas, provides an overview of best practices, and identifies amendments, as needed. • Consider amendments to the Zoning Code to reflect the best new practices in land use and parking requirements.	Mobility Element: Policies M 5.2	Lead: DRP	Years 1-2
M-2	**Community Pedestrian Plans** Prepare Community Pedestrian Plans that consider the following: • The adequacy of pedestrian routes, accommodations, and the need for improvements or additional infrastructure, given the current or future context of particular neighborhoods. • Design guidelines for streets and walking paths in public and private developments. • Connectivity of pedestrian paths to and from schools, public transportation, major employment centers, shopping centers, and government buildings, in order to eliminate gaps in the transportation system. • Special needs populations, including seniors and people with disabilities. • A framework for the development and implementation of Community Pedestrian	Mobility Element: Goal M 1, M 2, M 3	Lead: DPW Partner: DRP	Years 1-2

	Plans in the unincorporated areas that considers safety, design, connectivity, and the needs of all users. • Coordination with the development of the Planning Areas Framework Program and the TOD Program to ensure planning consistency and to promote intermodal transportation connectivity and community livability. • The identification of unincorporated communities with a substantial absence of, and need for, sidewalks. • Construction of pedestrian improvements through the annual road construction program. • The securing of grant program funding to construct pedestrian plan improvements.			
M-3	**Safe Routes to School Program** • Develop Safe Routes to School programs that address pedestrian and bicycle safety for a two-mile radius around all elementary, middle and high school facilities. • Identify low income communities and/or communities with high rates of bike/pedestrian injury and prioritize these for Safe Routes to Schools grants. • Within high priority areas, identify schools in great need of bike/pedestrian improvements. • Submit grant proposals for high priority schools/areas.	Mobility Element: Goal M 1, M 2	Lead: DPW Partner: DPH	Years 3-5
M-4	**Multimodal Transportation Planning Function** Develop a multimodal transportation planning function for the County. This planning function will be based on traffic modeling activities, which integrate the Highway Plan, Bikeway Master Plan, and future Community Pedestrian Plans. The modeling effort will allow the County to plan, design, and maintain transportation facilities in the unincorporated areas, which provide safe and efficient mobility for all users, including bicyclists, pedestrians, transit vehicles, trucks, and motorists. It will also incorporate traffic analysis guidelines, per SB 743.	Mobility Element: Goal M 4	Lead: DPW Partner: DRP	Years 1-2
AQ-1	**PACE Financing Program** Pursuant to AB 811, establish a countywide property assessed clean energy (PACE) financing program to provide municipal financing for energy and water efficiency and	Air Quality Element: Policies AQ 3.2, AQ 3.3 Public Services and	Lead: ISD	Years 1-2

	renewable energy projects on private property.	Facilities Element: Policy 6.5 Economic Development Element: Policy ED 1.2		
AQ-2	**Climate Change Adaptation Program** • Develop strategies to address the impacts of climate change related but not limited to agriculture, public health, ecosystems and natural resources, energy, infrastructure, and emergency management. • Climate change adaptation strategies may be conducted sequentially, starting with the evaluation of threats, vulnerability and risk assessments, identification of mitigation actions, and implementation. • Investigate short and long-term funding mechanisms. • Amend the General Plan accordingly to incorporate proposed climate change adaptation actions.	Air Quality Element: Policy AQ 3.8	Lead: CEO	Years 1-2
C/NR-1	**SEA Preservation Program** Coordinate with programs for the preservation of natural resources, especially programs that identify financial incentives for the acquisition of SEA lands. Focus on targeting the following implementation actions to ensure that SEAs are specifically included: • Transfer of Development Rights Program • Habitat Conservation Plan • Mitigation Land Banking Program/Open Space Master Plan • Open Space Land Acquisition Strategy	Conservation and Natural Resources Element: Goal C/NR 3, Policy C/NR 3.2	Lead: DRP	Years 1-2
C/NR-2	**SEA Ordinance** Update the Significant Ecological Areas Ordinance to implement the SEA Program in the General Plan.	Conservation and Natural Resources Element: Goal C/NR 3, Policy C/NR 3.1-12	Lead: DRP	Years 1-2

C/NR-3	**Mitigation Land Banking Program/Open Space Master Plan** Study the feasibility of creating a Mitigation Land Banking Program and an Open Space Master Plan with appropriate standards and criteria to allow eligible projects to purchase land within SEAs or other biologically sensitive areas as a mitigation measure for development in areas outside of SEAs. Encourage mitigation banking across watershed and jurisdictional boundaries to provide more opportunities for mitigation, and avoid the creation of "orphan mitigation banks."	Conservation and Natural Resources Element: Goal C/NR 3, Policy C/NR 3.2	Lead: DRP Partner: CEO, DPR, DPW, DPH, DBH, Agricultural Commissioner	Years 1-2
C/NR-4	**Oak Woodlands Conservation Management Plan Implementation** Implement the County's Oak Woodlands Conservation Management Plan through the following actions: • Develop a process for documenting oaks that are added by a property owner ("volunteer oaks") as part of the Zoning Ordinance Update Program; and • Work with the Los Angeles Region Imagery Acquisition Consortium to lobby for the inclusion of infrared imagery acquisition that will help document existing oak woodlands.	Conservation and Natural Resources Element: Goal C/NR 4, Policies C/NR 3.4, C/NR 4.1 Safety Element: Goal S 3, Policy S 3.10	Lead: DRP Partners: DPW, Fire	Years 1-2
C/NR-5	**Native Woodlands Conservation Management Plan** • Develop a conservation management plan, guidance document, and implementation ordinance for woodlands (other than oak) in Los Angeles County that are rare. Woodland types in need of conservation include but are not limited to: juniper woodlands; walnut woodlands; cherry woodlands; bay tree woodlands; willow woodlands; mixed riparian woodlands with willow, cottonwood, and sycamore components; California buckeye woodlands, and Joshua tree woodlands. • Work with the Los Angeles Region Imagery Acquisition Consortium for the inclusion of infrared imagery acquisition that will help document existing woodlands (other than oak).	Conservation and Natural Resources Element: Goal C/NR 4	Lead: DRP	Years 3-5
C/NR-6	**Scenic Resources Ordinance** • Prepare a Scenic Resources Ordinance that creates a scenic corridor, scenic viewshed, and significant ridgeline program and/or ordinance to protect remaining scenic resources.	Conservation and Natural Resources Element: Goal C/NR 13	Lead: DRP	Years 1-2

	• Develop countywide ridgeline protection regulations and a countywide ridgeline map.			
C/NR-7	**Agricultural Resource Areas Ordinance** • Prepare an Agricultural Resource Areas Ordinance in order to encourage the retention and sustainable utilization of agricultural land for agricultural uses. • Analyze the feasibility of offering incentives, such as density bonuses and/or conservation subdivisions, that deed-restrict a certain percentage of the project site for open space and agricultural uses only. • Ensure compatibility between agricultural and non-agricultural land uses through buffering, development standards, and design requirements.	Conservation and Natural Resources Element: Goal C/NR 8 Economic Development Element: Policy ED 1.4 and Policy ED 2.9	Lead: DRP	Years 1-2
C/NR-8	**Mineral Resource Areas Ordinance** Prepare a Mineral Resource Areas Ordinance that considers the following: • Develop regulations for development in Mineral Resource Areas to ensure that development projects are compatible with existing or potential mineral resource areas, and are designed to maintain the future development of extractive, surface mining or energy production. Consider the role of design and the use of buffers between new development and the mining operations, based on an evaluation of noise, aesthetics, drainage, operating conditions biological resources, topography, lighting, traffic, operating hours and air quality. • Develop standards and conditions for extractive surface mining facilities.	Conservation and Natural Resources Element: Goals C/NR 10, C/NR 11	Lead: DRP	Years 1-2
C/NR-9	**Habitat Conservation Plan** Prepare a Habitat Conservation Plan to identify and preserve biologically sensitive land and natural resources, including SEAs. The Habitat Conservation Plan shall include the following: • A review of best practices in Habitat Conservation Plans in other local jurisdictions; and • A dedicated permanent source of funding for natural area conservation and preservation related efforts, including the routine study of biological resources.	Conservation and Natural Resources Element: Goal C/NR 3	Lead: DRP Partner: CEO, DPR, DPW, DPH, DBH, Agricultural Commissioner	Years 3-5

C/NR-10	**Water Quality Initiatives** • Support multi-benefit outcomes, such as water quality benefits arising from ecosystem restoration efforts, and identify, attract, and create funds and resources to implement this initiative. • Participate in Enhanced Watershed Management Programs and Watershed Management Programs in coordination with other agencies throughout Los Angeles County. • Participate in Coordinated Integrated Watershed Monitoring Plans in coordination with other agencies throughout Los Angeles County.	Conservation and Natural Resources Element: Goals C/NR 5, C/NR 6, C/NR 7	Lead: DPW Partners: DPH, DBH	Years 3-5
C/NR-11	**Watershed and Rivers Master Plans** • Participate with stakeholders in the preparation of Watershed Management Plans in response to the NPDES Municipal Separate Storm Sewer Systems (MS4) Permit by promoting multi-benefit outcomes, including, but not limited to new public access to natural resources, new recreational opportunities, enhanced aquatic habitats, and restored natural features, where appropriate, while maintaining necessary levels of flood protection. • Identify, attract, and create funds and resources to implement these plans.	Conservation and Natural Resources Element: Goals C/NR 5, C/NR 6, C/NR 7	Lead: DPW Partner: DBH, DPR, CEO	Years 3-5
C/NR-12	**Urban Greening Program** • Work with the CDC and other stakeholders to expand community garden programs, and to identify County-owned parcels and other potential sites for community gardens. • Create and implement an urban farming program. • Conduct a tree inventory to identify tree deficient neighborhoods and target these areas for tree distribution and planting. • Adopt tree planting requirements for new developments, as described in the Community Climate Action Plan. • Explore joint-use agreements for green amenities for land under major utility corridor line easements.	Mobility Element: Policy M 2.9 Air Quality Element: Policy AQ 3.7 Conservation and Natural Resources Element: Policy C/NR 9.4	Lead: DRP Partners: DPW, DPR, CDC, Fire, CEO, Utilities, UC Cooperative Extension	Years 3-5

	• Amend the County Code, as applicable, to require 30 percent tree canopy coverage, at maturity, on new development to shade parking lots and structures in a manner that will reduce the urban heat island effect. • Work with other jurisdictions to leverage County resources in ways that facilitate environmental improvements consistent with natural landscape characteristics.			
C/NR-13	**Open Space Land Acquisition Strategy** Develop an open space land acquisition strategy that incorporates collaborative partners; identifies multi-use sites; explores all means of open space acquisition and preservation, such as inter-jurisdictional land swaps, mitigation banking, and other partnerships; and implements legal protections, such as deed-restrictions and easements. Develop programs to improve education, awareness, and stewardship of open spaces, natural areas and SEAs, recognizing and prioritizing opportunities to leverage County resources with those of other jurisdictions (such as when environmental improvements cross jurisdictions, but result in amplified improvements consistent with natural landscape boundaries/characteristics).	Conservation and Natural Resources Element: Goals C/NR 1,C/NR 2	Lead: DPR Partner: DRP, DPW	Years 6-10
C/NR-14	**Healthy and Sustainable Food Systems Ordinance** Perform an assessment of the food system in unincorporated areas to identify communities that lack access to healthy foods, barriers to the development of markets that support healthy food access, and opportunities to promote greater connectivity between local food sources and communities. Analyze the feasibility of urban agriculture incentive zones, which would provide a property tax incentive for dedication of vacant, unimproved or blighted urban infill properties to agriculture for a specified period. Prepare a Healthy and Sustainable Food Systems Ordinance that considers the following: • Incentives to promote healthy and sustainable farming practices, such as organic farming and hydroponics. • Identification and implementation of strategies and incentives to increase the availability of healthy and local foods in communities, especially those with limited access to fresh produce.	Conservation and Natural Resources Element: Goals C/NR 8, C/NR 9	Lead: DRP Partner: DPH, Agricultural Commissioner, UC Cooperative Extension	Years 6-10

C/NR-15	**Solar Energy Orientation Study** Prepare a Solar Energy Orientation Study that includes the following: • The feasibility of requiring the optimization of solar orientation in developments to maximize passive and active solar techniques, • Guidelines for reducing the urban heat island effect in new and existing development. • A solar energy subdivision design manual that depicts passive and active solar energy design guidelines.	Land Use Element: Goal LU 11 Air Quality Element: Policy AQ 3.1.	Lead: DRP	Years 6-10
P/R-1	**County Parks and Recreation Master Plan** • Develop a comprehensive Los Angeles County Parks and Recreation Master Plan in collaboration with partner agencies, community groups and other stakeholders. The Master Plan will include a needs and demands analysis, in-depth gap analysis, evaluation of existing facilities and programs, asset management strategies, and implementation actions, including: • Park Inventories: Carry out repairs and improvements to existing parks based on the priority established in the park facility inventories. Access related improvements, including upgrades to comply with the Americans with Disabilities Act (ADA), are a priority. As County parks may be used to operate Mass Care Shelters in a major disaster, these shelters must be accessible to persons with disabilities. Compile an inventory of historical resources at all County parks and recreational facilities, including facilities that are listed or eligible to be included on the state and/or national Register of Historic Places. Improve and enhance educational, informational, and regulatory signage at County parks and recreational facilities, as appropriate. • New Park Opportunities: Identify properties that may be suitable for the development of new parks and expansion of existing parks. Study the possibility of developing multi-benefit parks and trails in areas, such as floodway channels, powerline alignments, major water and sewer easements, flood basins and impoundment areas, and transportation rights of way. In addition, evaluate opportunities to develop parks and recreation facilities on brownfields following appropriate cleanup and remediation. • Policy Development: Draft a countywide policy to require developers of large	Parks and Recreation Element: Goals P/R 1, P/R 2, P/R 3	Lead: DPR Partner: DRP	Years 1-2

	residential projects to develop new public parks. Survey and mark the boundaries of County-owned wildlife and wildflower sanctuaries to address encroachment by adjacent property owners. Pursue local, state, and/or federal historical registration and/or museum accreditation of additional County parks and recreational facilities, where appropriate. • Land Acquisition Strategy: Develop a land acquisition strategy as a component of the Master Plan that will establish a framework for evaluating land acquisition priorities, identify funding options for acquisitions, and provide a five-year implementation plan for land acquisition. • Program Development: Expand the park volunteer program and actively recruit more youth and seniors to conduct recreation programs and services, and identify additional facilities where historical and natural resource programs may be offered. • Parks Maintenance Master Plan: Develop a Parks Maintenance Master Plan and a computerized maintenance reporting and tracking system to ensure that routine maintenance and operations of County parks and recreational facilities are carried out in a timely, efficient, and sustainable manner. The Maintenance Master Plan will establish benchmarks for all routine park maintenance tasks and future goals based on national standards. • Revenue Enhancement: Pursue a variety of initiatives to generate additional revenues for parks and recreation including: expanding the Adopt-a-Park program, soliciting donations and sponsorships, applying for grants, and holding more fundraising activities and events.			
P/R-2	**Trails Program** • Develop a Trails Master Plan as a component of the Parks and Recreation Master Plan in collaboration with other public, non-profit, and private organizations. As part of the Master Plan, create a GIS layer of existing and proposed city, County, regional, state, and federal trails and trail segments to identify gaps and opportunities for linkages. • Collaborate with state and federal park agencies to develop uniform trail maintenance standards and trail use regulations. • Prepare and release an official map of County multi-use trails for all users. • Design and develop a new countywide uniform trail signage program that provides identification, by creating an overall branding to unify DPR's signs, along with	Parks and Recreation Element: Goal P/R 4	Lead: DPR Partner: DRP	Years 1-2

	directional and regulatory information.			
P/R-3	**Parks Sustainability Program** Implement the County's Energy and Environmental Policy at County parks, including the following programs: • Leadership in Energy and Environmental Design (LEED) certification (or other equivalent energy certified ratings) for all new buildings of 10,000 square feet, which is the County's Board-approved policy. DPR will also pursue LEED-EB (Existing Buildings) certification for certain existing buildings on park properties by addressing whole building cleaning and maintenance issues (including chemical use), recycling programs, exterior maintenance programs, and systems upgrades. • Energy and Water Efficiency Program: This program seeks to further reduce energy and water consumption at County parks by establishing specific reduction targets and a formal reporting process to measure DPR's progress towards these targets. Recommended initiatives include the implementation of conservation monitoring practices, and energy and water efficiency projects in existing County parks. • Environmental Stewardship Program: Aims to reduce DPR's environmental footprint including, among other impacts, air pollutants that are produced through direct and indirect DPR operations, increase the use of environmentally-friendly products, and expand its recycling, composting, and mulching programs. • Sustainable Design Program: Provides for the integration of sustainable, green building technologies into the designs of park improvement and refurbishment projects, seeks to extend the life cycle or useful life of buildings on County parks, and maximize energy and water use efficiency. Establish and implement guidelines for the operation, design, and development of existing and new park facilities that will meet the needs of communities, while minimizing impacts to the natural environment. The guidelines will address a variety of issues, including but not limited to the following: • Systems design that promotes efficient use of water and energy; • Landscape design that uses drought-tolerant plants and native plants, where appropriate; • The use of construction material with recycled content;	Parks and Recreation Element: Goal P/R 6	Lead: DPR Partner: ISD	Years 3-5

	• The reduction of waste during construction and occupancy; • The use of construction materials with reduced or no release of harmful gases; • Building design and operation which promote indoor air quality and users' comfort level and productivity; • The installation of efficient plumbing fixtures to reduce potable water use and lower production of waste water; and • The purchase of sustainable cleaning materials and building maintenance products.			
N-1	**Countywide Noise Assessment Survey/County Noise Ordinance Update** • Identify major sources of noise and noise issues in the County (Countywide Assessment Survey) • Revise the County's Noise Ordinance, update the vibration standard.	Noise Element: Goal N 1	Lead: DPH Partner: DRP, DPW	Years 1-2
N-2	**Countywide Noise Mapping** If determined to be feasible, prepare a map of detailed noise contours and associated land uses within the County.	Noise Element: Goal N 1	Lead: DPH Partner: DRP	Years 6-10
N-3	**Noise Abatement Program** Create guidelines to mitigate noise issues in development projects and at a countywide level. Plan transportation/parking features to have minimal noise impacts to natural resources.	Noise Element: Goal N 1	Lead: DPH Partner: DRP	Years 6-10
S-1	**Debris Management Plan** Prepare a Debris Management Plan to address the mass removal of debris that could result from a major disaster.	Safety Element: Goal S 4	Lead: DPW and OEM	Years 3-5
S-2	**At-Risk Properties Hazard Fund and Strategies**	Safety Element: Goals S 1, S 2, S 3	Lead: DPW	Years 6-10

	• Identify at-risk properties in hazard areas, such as those on FEMA's repetitive loss properties list. • Research available funding sources to retrofit existing structures that are located in hazard areas.		Partner: CEO, DRP, DPH	
S-3	**Floodplain Management Plan Implementation and Update** • Distribute and advocate the County's Floodplain Management Plan, which focuses on flood hazard mitigation for repetitive loss properties in the County's unincorporated areas. • Update the Floodplain Management Plan on its five-year cycle to address any additional or reduction of repetitive loss properties.	Safety Element: Goal S 2	Lead: DPW	Ongoing
PS/F-1	**Planning Area Capital Improvement Plans** DRP and DPW to jointly secure sources of funding and set priorities for preparing studies to assess infrastructure needs for the 11Planning Areas. Once funding has been secured and priorities have been set, prepare a Capital Improvement Plan for each of the 11 Planning Areas (see also Planning Areas Framework Program). Each Capital Improvement Plan shall include the following as needed: Sewer Capacity Study; Transportation System Capacity Study; Waste Management Study; Stormwater System Study; Public Water System Study; list of necessary infrastructure improvements; Implementation Program; and Financing Plan. As applicable, studies related to water, sewer, traffic and stormwater management should specifically address the needs of the unincorporated legacy communities identified in the Land Use Element.	Mobility Element: Goal M 3 Public Services and Facilities Element: Goal PS/F 1 Economic Development Element: Policy ED 3.1	Leads: DPW and DRP	Years 1-2
PS/F-2	**Water Conservation Ordinance** • Continually review and update the County's water conservation ordinance with appropriate enforcement procedures, such as instituting a water conservation hotline and other measures.	Public Services and Facilities Element: Goals PS/F 2, PS/F 3	Lead: DPH	Years 1-2

PS/F-3	**Agricultural Water Conservation Program** Study the feasibility of creating an agricultural water conservation program, which will increase crop water use efficiency, and reduce water use through conservation and technological advancement in water management.	Public Services and Facilities Element: Goals PS/F 2, PS/F 3	Lead: DRP Partner: Agricultural Commissioner	Years 6-10
ED-1	**Economic Development Incentives Program** • Develop business incentives for infill development, brownfield remediation, and alternative energy production. • Identify federal, state, and local resources to create economic and regulatory incentives in order to attract targeted industries and to promote sustainable development policies. • Create incentives and programs, and seek and apply for grant funding to rehabilitate and upgrade commercial and industrial districts. • Expand and renew the County's incentive zones and districts to better address the need for economic development throughout the County's industrial and commercial areas. • Incentivize services and employment opportunities to revitalize economically distressed areas.	Economic Development Element: Policies ED 1.3, 1.4, 1.7, 3.4, 3.5, 4.1, 4.3, 4.8	Lead: CDC Partner: DRP, CEO, LAEDC	Years 1-2
ED-2	**Economic Development Outreach and Coordination Initiative** • Collect information and develop a benchmarking mechanism on economic and business trends and conditions, in conjunction with the Los Angeles County Economic Development Corporation (LAEDC), real estate professionals, site locator service providers, and economic development professionals. Determine needs and respond to changes using this information. • Create a web site and related materials that guide developers and the business community through the County planning and permitting process, include information on policies that facilitate infill development and smart growth, and regularly update a site inventory of public land that is available for economic investment and redevelopment opportunities.	Economic Development Element: Policies ED 1.3, 1.4, 1.9, 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 6.1, 6.2, 6.3	Lead: CDC Partners: CEO, DRP, LAEDC	Years 6-10

	• Develop sector strategies that emphasize the sustainability of sector-based training initiatives in targeted high growth industries, in conjunction with Los Angeles County Workforce Investment Boards, LAEDC, the state Employment Development Department, the Los Angeles Area Chamber of Commerce, Los Angeles Community College District, Los Angeles Unified School District, Los Angeles County Federation of Labor, and other partners. Inventory existing workforce development programs throughout the County and promote them via the County, Workforce Investment Board, LAEDC, local government, community-based organization and other web sites. • Lead the implementation of coordinated “one-stop” centers (America’s Job Centers of California) that integrate state EDD programs and other county services, while leveraging varied partners to provide a seamless and diversified experience for job-seekers. • Utilize Sector Intermediaries to ensure the County’s workforce services meet the needs of employers in high-growth industry sectors, thereby increasing the number of job-seekers placed into new and living wage occupations and careers. • Support in-school County youth by expanding the number who complete introductory STEM curricula (science, technology, engineering and math) and participate in the Summer Youth Employment Program, while ensuring out-of-school youth receive comprehensive services through AJCCs. • Participate in regional collaborative efforts around economic development between business and universities, colleges, and private training institutes and service providers. • Develop a promotional campaign that targets foreign-owned enterprises in specific industries in order to attract them to establish operations in Los Angeles County. Collaborate with entities, such as the World Trade Association.			

ED-3	**Economic Development Land Use Strategy** • Develop an economic development land use strategy that does the following: • Ensure that the unincorporated areas is competitive for business establishment and expansion, by identifying and addressing regulatory barriers. • Make the planning and entitlement process for economic development activities timely, accountable, customer-driven, and predictable. • Identify opportunities to relocate current residential uses, where feasible, that are surrounded by industrial uses in Employment Protection Districts. • Consider amendments to Title 22 to add development standards to buffer residential and industrial uses. • In key industrial areas, consider the allowance of flexibility in land uses and permitting requirements as a way to incentivize redevelopment of these areas, and establish clear guidelines for development to ensure compatibility.	Land Use Element: Policy 5.9, 5.10, 6.2 Economic Development Element: Policy ED 1.5, 1.6, 2.1, 2.2, 2.3, 2.8	Lead: DRP Partner: CDC, CEO, LAEDC	Years 1-2

Chapter 17: Goals and Policies Summary

Land Use Element Goals and Policies

Goal LU 1: A General Plan that serves as the constitution for development, and a Land Use Policy Map that implements the General Plan's Goals, Policies and Guiding Principles.	
Topic	**Policy**
General Plan Amendments	Policy LU 1.1: Support comprehensive updates to the General Plan, area plans, community plans, coastal land use plans and specific plans.
	Policy LU 1.2: Discourage project-specific amendments to the text of the General Plan, including but not limited to the Guiding Principles, Goals, and Policies.
	Policy LU 1.3: In the review of project-specific amendments to the General Plan, ensure that they support the Guiding Principles.
	Policy LU 1.4: In the review of a project-specific amendment(s) to the General Plan, ensure that the project-specific amendment(s): • Is consistent with the goals and policies of the General Plan; • Shall benefit the public interest and is necessary to realize an unmet local or regional need.
	Policy LU 1.5: In the review of a project-specific amendment(s) to convert OS-C designated lands to other land use designations, ensure that the project-specific amendment(s) does not contribute to the overall loss of open space that protects water quality, provides natural habitats, and contributes to improved air quality.
	Policy LU 1.6: In the review of a project-specific amendment(s) to convert lands within the EPD Overlay to non-industrial land use designations, ensure that the project-specific amendment(s): • Is located on a parcel that adjoins a parcel with a comparable use, at a comparable scale and intensity; • Will not negatively impact the productivity of neighboring industrial activities; • Is necessary to promote the economic value and the long-term viability of the site; and • Will not subject future residents to potential noxious impacts, such as noise, odors or dust or pose significant health and safety risks.
	Policy LU 1.7: In the review of a project-specific amendment(s) to convert lands within the ARAs, ensure that the project-specific amendment(s): • Is located on a parcel that adjoins another parcel with a comparable use, at a comparable scale and intensity; and • Will not negatively impact the productivity of neighboring agricultural activities.

	Policy LU 1.8: Limit the amendment of each mandatory element of the General Plan to four times per calendar year, unless otherwise specified in Section 65358 of the California Government Code.
	Policy LU 1.9: Allow adjustments to the General Plan Land Use Policy Map to follow an adjusted Highway Plan alignment without a General Plan amendment, when the following findings can be met: • The adjustment is necessitated by an adjusted Highway Plan alignment that was approved by the Los Angeles County Interdepartmental Engineering Committee (IEC) in a duly noticed public meeting; • The adjustment maintains the basic relationship between land use types; and • The adjustment is consistent with the General Plan.
Specific Plans	Policy LU 1.10: Require the intensity, density, and uses allowed in a new specific plan to be determined using the General Plan, including the Land Use Policy Map and Land Use Legend.
	Policy LU 1.11: Require a General Plan amendment for any deviation from the intensities, densities, and uses allowed by the General Plan (to apply the appropriate designation from the General Plan Land Use Legend), unless allowances for flexibility are specified in the specific plan.
	Policy LU 1.12: Require development regulations and zoning for new specific plans to be consistent with their corresponding General Plan land use designation.
	Policy LU 1.13: Allow specific plans to include implementation procedures for flexibility, such as development phasing, and redistribution of intensities and uses, as appropriate.
	Policy LU 1.14: Require a specific plan amendment for any deviation from the procedures and policies established by a specific plan.
	Policy LU 1.15: For existing specific plans, which are depicted with an “SP” land use designation, the General Plan Land Use Policy Map shall be amended as part of a comprehensive area planning effort, to identify existing specific plans using the Specific Plan Overlay.
Goal LU 2: Community-based planning efforts that implement the General Plan and incorporate public input, and regional and community level collaboration.	
Topic	**Policy**
Regional and Community-Based Planning Initiatives	Policy LU 2.1: Ensure that all community-based plans are consistent with the General Plan.
	Policy LU 2.2: Ensure broad outreach, public participation, and opportunities for community input in community-based planning efforts.
	Policy LU 2.3: Consult with and ensure that applicable County departments, adjacent cities and other stakeholders are involved in community-based planning efforts.
	Policy LU 2.4: Coordinate with other local jurisdictions to develop compatible land uses.
	Policy LU 2.5: Support and actively participate in inter-jurisdictional and regional planning efforts to help inform community-based planning efforts.

	Policy LU 2.6: Consider the role of arts and culture in community-based planning efforts to celebrate and enhance community character.
	Policy LU 2.7: Set priorities for Planning Area-specific issues, including transportation, housing, open space, and public safety as part of community-based planning efforts.
	Policy LU 2.8: Coordinate with the Los Angeles County Department of Public Works and other infrastructure providers to analyze and assess infrastructure improvements that are necessary for plan implementation.
	Policy LU 2.9: Utilize the General Plan Land Use Legend and the Hazard, Environmental and Resource Constraints Model to inform the development of land use policy maps.
	Policy LU 2.10: Ensure consistency between land use policy and zoning by undergoing a comprehensive zoning consistency analysis that includes zoning map changes and Zoning Code amendments, as needed.
	Policy LU 2.11: Update community-based plans on a regular basis.
	Policy LU 2.12: Community-based plans and existing specific plans shall be updated, as needed, to reflect the General Plan Land Use Legend as part of a comprehensive area planning effort. An exception to this is for coastal land use plans, which are subject to the California Coastal Act and to review by the California Coastal Commission.
Goal LU 3: A development pattern that discourages sprawl, and protects and conserves areas with natural resources and SEAs.	
Topic	**Policy**
Growth Management	Policy LU 3.1: Encourage the protection and conservation of areas with natural resources, and SEAs.
	Policy LU 3.2: Discourage development in areas with high environmental resources and/or severe safety hazards.
	Policy LU 3.3: Discourage development in undeveloped areas where infrastructure and public services do not exist, or where no major infrastructure projects are planned, such as state and/or federal highways.
Goal LU 4: Infill development and redevelopment that strengthens and enhances communities.	
Topic	**Policy**
Infill Development	Policy LU 4.1: Encourage infill development in urban and suburban areas on vacant, underutilized, and/or brownfield sites.
	Policy LU 4.2: Encourage the adaptive reuse of underutilized structures and the revitalization of older, economically distressed neighborhoods.
	Policy LU 4.3: Encourage transit-oriented development in urban and suburban areas with the appropriate residential density along transit corridors and within station areas.

	Policy LU 4.4: Encourage mixed use development along major commercial corridors in urban and suburban areas.
Goal LU 5: Vibrant, livable and healthy communities with a mix of land uses, services and amenities.	
Topic	**Policy**
Community-Serving Uses	Policy LU 5.1: Encourage a mix of residential land use designations and development regulations that accommodate various densities, building types and styles.
	Policy LU 5.2: Encourage a diversity of commercial and retail services, and public facilities at various scales to meet regional and local needs.
	Policy LU 5.3: Support a mix of land uses that promote bicycling and walking, and reduce VMTs.
	Policy LU 5.4: Encourage community-serving uses, such as early care and education facilities, grocery stores, farmers markets, restaurants, and banks to locate near employment centers.
	Policy LU 5.5: Ensure that all households have access to a sufficient supply of quality early care and education and supervised school-age enrichment options for children from birth to age 13.
	Policy LU 5.6: Reduce regulatory and other barriers to early care and education facilities.
	Policy LU 5.7: Direct resources to areas that lack amenities, such as transit, clean air, grocery stores, bikeways, parks, and other components of a healthy community.
	Policy LU 5.8: Encourage farmers markets, community gardens, and proximity toother local food sources that provide access to healthful and nutritious foods.
Employment Generating Uses	Policy LU 5.9: Preserve key industrially designated land for intensive, employment-based uses.
	Policy LU 5.10: Encourage employment opportunities and housing to be developed in proximity to one another.
Goal LU 6: Protected rural communities characterized by living in a non-urban or agricultural environment at low densities without typical urban services.	
Topic	**Policy**
Rural Character	Policy LU 6.1: Protect rural communities from the encroachment of incompatible development that conflict with existing land use patterns and service standards.
	Policy LU 6.2: Encourage land uses and developments that are compatible with the natural environment and landscape.
	Policy LU 6.3: Encourage low density and low intensity development in rural areas that is compatible with rural community character, preserves open space, and conserves agricultural land.
Goal LU 7: Compatible land uses that complement neighborhood character and the natural environment.	

Topic	Policy
Land Use Compatibility	Policy LU 7.1: Reduce and mitigate the impacts of incompatible land uses, where feasible, using buffers and other design techniques.
	Policy LU 7.2: Protect industrial parks and districts from incompatible uses.
	Policy LU 7.3: Protect public and semi-public facilities, including but not limited to major landfills, natural gas storage facilities, and solid waste disposal sites from incompatible uses.
	Policy LU 7.4: Ensure land use compatibility in areas adjacent to military installations and where military operations, testing, and training activities occur.
	Policy LU 7.5: Ensure land use compatibility in areas adjacent to mineral resources where mineral extraction and production, as well as activities related to the drilling for and production of oil and gas, may occur.
	Policy LU 7.6: Ensure that proposed land uses located within Airport Influence Areas are compatible with airport operations through compliance with airport land use compatibility plans.
	Policy LU 7.7: Review all proposed projects located within Airport Influence Areas for consistency with policies of the applicable airport land use compatibility plan.
Goal LU 8: Land uses that are compatible with military operations and military readiness, and enhance safety for military personnel and persons on the ground.	
Topic	**Policy**
Military Compatible Uses	Policy LU 8.1: Facilitate the early exchange of project-related information that is pertinent to military operations with the military for proposed actions within MOAs, HRAIZs, and within 1,000 ft. of a military installation.
	Policy LU 8.2: Evaluate the potential impact of new structures within MOAs and HRAIZs to ensure the safety of the residents on the ground and continued viability of military operations. In the review of development within MOAs and HRAIZs, consider the following: • Uses that produce electromagnetic and frequency spectrum interference, which could impact military operations; • Uses that release into the air any substance such as steam, dust and smoke, which impair pilot visibility; • Uses that produce light emissions, glare or distracting lights, which could interfere with pilot vision or be mistaken for airfield lighting; and • Uses that physically obstruct any portion of the MOA and/or HRAIZ due to relative height above ground level.
Goal LU 9: Land use patterns and community infrastructure that promote health and wellness.	
Topic	**Policy**

Community Wellness	Policy LU 9.1: Promote community health for all neighborhoods.
	Policy LU 9.2: Encourage patterns of development that promote physical activity.
	Policy LU 9.3: Encourage patterns of development that increase convenient, safe access to healthy foods, especially fresh produce, in all neighborhoods.
Goal LU 10: Well-designed and healthy places that support a diversity of built environments.	
Topic	**Policy**
Community Design	Policy LU 10.1: Encourage community outreach and stakeholder agency input early and often in the design of projects.
	Policy LU 10.2: Design development adjacent to natural features in a sensitive manner to complement the natural environment.
	Policy LU 10.3: Consider the built environment of the surrounding area and location in the design and scale of new or remodeled buildings, architectural styles, and reflect appropriate features such as massing, materials, color, detailing or ornament.
	Policy LU 10.4: Promote environmentally-sensitive and sustainable design.
	Policy LU 10.5: Encourage the use of distinctive landscaping, signage and other features to define the unique character of districts, neighborhoods or communities, and engender community identity, pride and community interaction.
	Policy LU 10.6: Encourage pedestrian activity through the following: • Designing the main entrance of buildings to front the street; • Incorporating landscaping features; • Limiting masonry walls and parking lots along commercial corridors and other public spaces; • Incorporating street furniture, signage, and public events and activities; and • Using wayfinding strategies to highlight community points of interest.
	Policy LU 10.7: Promote public spaces, such as plazas that enhance the pedestrian environment, and, where appropriate, continuity along commercial corridors with active transportation activities.
	Policy LU 10.8: Promote public art and cultural amenities that support community values and enhance community context.
	Policy LU 10.9: Encourage land uses and design that stimulate positive and productive human relations and foster the achievement of community goals.
	Policy LU 10.10: Promote architecturally distinctive buildings and focal points at prominent locations, such as major commercial intersections and near transit stations or open spaces.

	Policy LU 10.11: Facilitate the use of streets as public space for activities that promote civic engagement, such as farmers markets, parades, etc.
	Policy LU 10.12: Discourage gated entry subdivisions (“gated communities”) to improve neighborhood access and circulation, improve emergency access, and encourage social cohesion.
	Policy LU 10.13: Discourage flag lot subdivisions unless designed to be compatible with the existing neighborhood character.
Goal LU 11: Development that utilize sustainable design techniques.	
Topic	**Policy**
Energy Efficient Development	Policy LU 11.1: Encourage new development to employ sustainable energy practices, such as utilizing passive solar techniques and/or active solar technologies.
	Policy LU 11.2: Support the design of developments that provide substantial tree canopy cover, and utilize light-colored paving materials and energy-efficient roofing materials to reduce the urban heat island effect.
	Policy LU 11.3: Encourage development to optimize the solar orientation of buildings to maximize passive and active solar design techniques.
Sustainable Subdivisions	Policy LU 11.4: Encourage subdivisions to utilize sustainable design practices, such as maximizing energy efficiency through lot configuration; preventing habitat fragmentation; promoting stormwater retention; promoting the localized production of energy; promoting water conservation and reuse; maximizing interconnectivity; and utilizing public transit.
	Policy LU 11.5: Prohibit the use of private yards as required open space within subdivisions, unless such area includes active recreation or outdoor activity areas dedicated for common and/or public use.
	Policy LU 11.6: Ensure that subdivisions in VHFHSZs site open space to minimize fire risks, as feasible.
	Policy LU 11.7: Encourage the use of design techniques to conserve natural resource areas.
	Policy LU 11.8: Encourage sustainable subdivisions that meet green neighborhood standards, such as Leadership in Energy and Environmental Design–Neighborhood Development (LEED-ND).

Mobility Element Goals and Policies

Goal M 1: Street designs that incorporate the needs of all users.	
Topic	**Policy**
Complete Streets	Policy M 1.1: Provide for the accommodation of all users, including pedestrians, motorists, bicyclists, equestrians, users of public transit, seniors, children, and persons with disabilities when requiring or planning for new, or retrofitting existing, transportation corridors/networks whenever appropriate and feasible.
	Policy M 1.2: Ensure that streets are safe for sensitive users, such as seniors and children.
	Policy M 1.3: Utilize industry standard rating systems to assess sustainability and effectiveness of street systems for all users.
Goal M 2: Interconnected and safe bicycle- and pedestrian-friendly streets, sidewalks, paths and trails that promote active transportation and transit use.	
Topic	**Policy**
Active Transportation Design	Policy M 2.1: Provide transportation corridors/networks that accommodate pedestrians, equestrians and bicyclists, and reduce motor vehicle accidents through a context-sensitive process that addresses the unique characteristics of urban, suburban, and rural communities whenever appropriate and feasible.
	Policy M 2.2: Accommodate pedestrians and bicyclists, and reduce motor vehicle accidents by implementing the following street designs, whenever appropriate and feasible: • Lane width reductions to 10 or 11 feet in low speed environments with a low volume of heavy vehicles. • Wider lanes may still be required for lanes adjacent to the curb, and where buses and trucks are expected. • Low-speed designs. • Access management practices developed through a community-driven process. • Back in angle parking at locations that have available roadway width and bike lanes, where appropriate.

	Policy M 2.3: Accommodate pedestrians and bicyclists, and reduce motor vehicle accidents by implementing the following intersection designs, whenever appropriate and feasible: • Right angle intersections that reduce intersection skew. • Smaller corner radii to reduce crossing distances and slow turning vehicles. • Traffic calming measures, such as bulb-outs, sharrows, medians, roundabouts, and narrowing or reducing the number of lanes (road diets) on streets. • Crossings at all legs of an intersection. • Shorter crossing distances for pedestrians. • Right-turn channelization islands. Sharper angles of slip lanes may also be utilized. • Signal progression at speeds that support the target speed of the corridor. • Pedestrian push buttons when pedestrian signals are not automatically recalled. • Walk interval on recall for short crossings. • Left-turn phasing. • Prohibit right turn on red. • Signs to remind drivers to yield to pedestrians.

	Policy M 2.4: Ensure a comfortable walking environment for pedestrians by implementing the following, whenever appropriate and feasible: • Designs that limit dead-end streets and dead-end sidewalks. • Adequate lighting on pedestrian paths, particularly around building entrances and exits, and transit stops. • Designs for curb ramps, which are pedestrian friendly and compliant with the American Disability Act (ADA). • Perpendicular curb ramps at locations where it is feasible. • Pedestrian walking speed based on the latest standard for signal timing. Slower speeds should be used when appropriate (i.e., near senior housing, rehabilitation centers, etc.) • Approved devices to extend the pedestrian clearance times at signalized intersections. • Accessible Pedestrian Signals (APS) at signalized intersections. • Pedestrian crossings at signalized intersections without double or triple left or right turn lanes. • Pedestrian signal heads, countdown pedestrian heads, pedestrian phasing and leading pedestrian intervals at signalized intersections. • Exclusive pedestrian phases (pedestrian scrambles) where turning volume conflicts with very high pedestrian volumes. • Advance stop lines at signalized intersections. • Pedestrian Hybrid Beacons. • Medians or crossing islands to divide long crossings. • High visibility crosswalks. • Pedestrian signage. • Advanced yield lines for uncontrolled crosswalks. • Rectangular Rapid Flashing Beacon or other similar approved technology at locations of high pedestrian traffic. • Safe and convenient crossing locations at transit stations and transit stops located at safe intersections.

	Policy M 2.5: Ensure a comfortable bicycling environment by implementing the following, whenever appropriate and feasible: • Bicycle signal heads at intersections. • Bicycle signal detection at all signalized intersections. • Wayfinding signage. • Road diet techniques, such as lane narrowing, lane removal, and parking removal/restriction. • Appropriate lighting on all bikeways, including those in rural areas. • Designs, or other similar features, such as: shoulder bikeways, cycle tracks, contra flow bike lanes, shared use paths, buffered bike lanes, raised bike lanes, and bicycle boulevards.
	Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible.
	Policy M 2.7: Require sidewalks, trails and bikeways to accommodate the existing and projected volume of pedestrian, equestrian and bicycle activity, considering both the paved width and the unobstructed width available for walking.
	Policy M 2.8: Connect trails and pedestrian and bicycle paths to schools, public transportation, major employment centers, shopping centers, government buildings, residential neighborhoods, and other destinations.
	Policy M 2.9: Encourage the planting of trees along streets and other forms of landscaping to enliven streetscapes by blending natural features with built features.
	Policy M 2.10: Encourage the provision of amenities, such as benches, shelters, secure bicycle storage, and street furniture, and comfortable, safe waiting areas near transit stops.
	Policy M 2.11: In urban and suburban areas, promote the continuity of streets and sidewalks through design features, such as limiting mid-block curb cuts, encouraging access through side streets or alleys, and promoting shorter block lengths.
Goal M 3: Streets that incorporate innovative designs.	
Topic	**Policy**
Innovative Street Design	Policy M 3.1: Facilitate safe roadway designs that protect users, preserve state and federal funding, and provide reasonable protection from liability.
	Policy M 3.2: Consider innovative designs when part of an accepted standard, or when properly vetted through an appropriate engineering/design review, in compliance with all state and federal laws.

	Policy M 3.3: Complete the following studies prior to the implementation of innovative design concepts: • An analysis of the current and future context of the community and neighborhood in which they are proposed; • A balanced assessment of the needs of all users and travel modes (i.e., pedestrian, bicycle, transit, vehicular, and equestrian, where appropriate); • A technical assessment of the operational and safety characteristics for each mode; and • A consistency check with transportation network plans, including the Highway Plan, Bicycle Master Plan, and Community Pedestrian Plans.
	Policy M 3.4: Support legislation that minimizes or eliminates liability associated with the implementation of innovative street designs that accommodate all users.
Goal M 4: An efficient multimodal transportation system that serves the needs of all residents.	
Topic	**Policy**
Transit Efficiency, Multimodal Transportation	Policy M 4.1: Expand transportation options that reduce automobile dependence.
	Policy M 4.2: Expand shuttle services to connect major transit centers to community points of interest.
	Policy M 4.3: Maintain transit services within the unincorporated areas that are affordable, timely, cost-effective, and responsive to growth patterns and community input.
	Policy M 4.4: Ensure expanded mobility and increase transit access for underserved transit users, such as seniors, students, low income households, and persons with disabilities.
	Policy M 4.5: Encourage continuous, direct routes through a connected system of streets, with small blocks and minimal dead ends (cul-de-sacs), as feasible.
	Policy M 4.6: Support alternatives to LOS standards that account for a multimodal transportation system.
	Policy M 4.7: Maintain a minimum LOS D, where feasible; however, allow LOS below D on a case by case basis in order to further other General Plan goals and policies, such as those related to environmental protection, infill development, and active transportation.
	Policy M 4.8: Provide and maintain appropriate signage for streets, roads and transit.
	Policy M 4.9: Ensure the participation of all potentially affected communities in the transportation planning and decision-making process.
	Policy M 4.10: Support the linkage of regional and community-level transportation systems, including multimodal networks.
	Policy M 4.11: Improve the efficiency of the public transportation system with bus lanes, signal prioritization, and connections to the larger regional transportation network.

	Policy M 4.12: Work with adjacent jurisdictions to ensure connectivity and the creation of an integrated regional network.
	Policy M 4.13: Coordinate with adjacent jurisdictions in the review of land development projects near jurisdictional borders to ensure appropriate roadway transitions and multimodal connectivity.
	Policy M 4.14: Coordinate with Caltrans on mobility and land use decisions that may affect state transportation facilities.
Travel Demand Management	Policy M 4.15: Reduce vehicle trips through the use of mobility management practices, such as the reduction of parking requirements, employer/institution based transit passes, regional carpooling programs, and telecommuting.
	Policy M 4.16: Promote mobility management practices, including incentives to change transit behavior and using technologies, to reduce VMTs.
Goal M 5: Land use planning and transportation management that facilitates the use of transit.	
Topic	**Policy**
Land Use and Transportation	Policy M 5.1: Facilitate transit-oriented land uses and pedestrian-oriented design, particularly in the first-last mile connections to transit, to encourage transit ridership.
	Policy M 5.2: Implement parking strategies that facilitate transit use and reduce automobile dependence.
	Policy M 5.3: Maintain transportation right-of-way corridors for future transportation uses, including bikeways, or new passenger rail or bus services.
Transportation Funding	Policy M 5.4: Support and pursue funding for the construction, maintenance and improvement of roadway, public transit, and equestrian, pedestrian and bicycle transportation systems.
	Policy M 5.5: Encourage financing programs, such as congestion pricing, bonding, increasing parking costs, fair share programs for each community, to implement local and state transportation systems and facilities.
Goal M 6: The safe and efficient movement of goods.	
Topic	**Policy**
Goods Movement	Policy M 6.1: Maximize aviation and port system efficiencies for the movement of people, goods and services.
	Policy M 6.2: Support the modernization of aviation systems, including LAX.
	Policy M 6.3: Designate official truck routes to minimize the impacts of truck traffic on residential neighborhoods and other sensitive land uses.
	Policy M 6.4: Minimize noise and other impacts of goods movement, truck traffic, deliveries, and staging in residential and mixed-use neighborhoods.

	Policy M 6.5: Support infrastructure improvements and the use of emerging technologies that facilitate the clearance, timely movement, and security of trade.
	Policy M 6.6: Preserve property for planned roadway and railroad rights-of-way, marine and air terminals, and other needed transportation facilities.
Goal M 7: Transportation networks that minimizes negative impacts to the environment and communities.	
Topic	**Policy**
Environmentally Sensitive Transportation Design	Policy M 7.1: Minimize roadway runoff through the use of permeable surface materials, and other low impact designs, wherever feasible.
	Policy M 7.2: Encourage the creation of wildlife underpasses and overpasses, fencing, signage, and other measures to minimize impacts to wildlife at junctures where transit infrastructure passes through or across sensitive habitats.
	Policy M 7.3: Encourage the use of sustainable transportation facilities and infrastructure technologies, such as liquid and compressed natural gas, and hydrogen gas stations, ITS, and electric car plug-in ports.
	Policy M 7.4: Where the creation of new or the retrofit of roadways or other transportation systems is necessary in areas with sensitive habitats, particularly SEAs, use best practice design to encourage species passage and minimize genetic diversity losses.
Rural Streets	Policy M 7.5: In rural areas, require rural highway and street standards that minimize the width of paving and the placement of curbs, gutters, sidewalks, street lighting, and traffic signals, except where necessary for public safety.

Air Quality Element Goals and Policies

Goal AQ 1: Protection from exposure to harmful air pollutants.	
Topic	**Policy**
Air Pollutants	Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.
	Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials.
	Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible.
	Policy AQ 1.4: Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxics from identified mobile and stationary sources.
Goal AQ 2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning.	
Topics	**Policy**
Air Quality, Land Use, and Transportation	Policy AQ 2.1: Encourage the application of design and other appropriate measures when siting sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways.
	Policy AQ 2.2: Participate in, and effectively coordinate the development and implementation of community and regional air quality programs.
	Policy AQ 2.3: Support the conservation of natural resources and vegetation to reduce and mitigate air pollution impacts.
	Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses.
Goal AQ 3: Implementation of plans and programs to address the impacts of climate change.	
Topic	**Policy**
Climate Change	Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emission reduction goals.
	Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015.
	Policy AQ 3.3: Reduce water consumption in County operations.

	Policy AQ 3.4: Participate in local, regional and state programs to reduce greenhouse gas emissions.
	Policy AQ 3.5: Encourage energy conservation in new development and municipal operations.
	Policy AQ 3.6: Support rooftop solar facilities on new and existing buildings.
	Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas.
	Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaptation strategies to ensure that the community and public services are resilient to climate change impacts.

Conservation and Natural Resources Element Goals and Policies

Goal C/NR 1: Open space areas that meet the diverse needs of Los Angeles County.	
Topic	**Policy**
Open Space Preservation and Conservation of Natural Areas	Policy C/NR 1.1: Implement programs and policies that enforce the responsible stewardship and preservation of dedicated open space areas.
	Policy C/NR 1.2: Protect and conserve natural resources, natural areas, and available open spaces.
Open Space Acquisition	Policy C/NR 1.3: Support the acquisition of new available open space areas. Augment this strategy by leveraging County resources in concert with the compatible open space stewardship actions of other agencies, as feasible and appropriate.
	Policy C/NR 1.4: Create, support and protect an established network of dedicated open space areas that provide regional connectivity, between the southwestern extent of the Tehachapi Mountains to the Santa Monica Mountains, and from the southwestern extent of the Mojave Desert to Puente Hills and Chino Hills.
	Policy C/NR 1.5: Provide and improve access to dedicated open space and natural areas for all users that considers sensitive biological resources.
	Policy C/NR 1.6: Prioritize open space acquisitions for available lands that contain unique ecological features, streams, watersheds, habitat types and/or offer linkages that enhance wildlife movements and genetic diversity.
Goal C/NR 2: Effective collaboration in open space resource preservation.	
Topic	**Policy**
Open Space Collaboration and Financing	Policy C/NR 2.1: Establish new revenue generating mechanisms to leverage County resources to enhance and acquire available open space and natural areas.
	Policy C/NR 2.2: Encourage the development of multi-benefit dedicated open spaces.
	Policy C/NR 2.3: Improve understanding and appreciation for natural areas through preservation programs, stewardship, and educational facilities.
	Policy C/NR 2.4: Collaborate with public, non-profit, and private organizations to acquire and preserve available land for open space.
Goal C/NR 3: Permanent, sustainable preservation of genetically and physically diverse biological resources and ecological systems including: habitat linkages, forests, coastal zone, riparian habitats, streambeds, wetlands, woodlands, alpine habitat, chaparral, shrublands, and SEAs.	
Topic	**Policy**
Protection of Biological	Policy C/NR 3.1: Conserve and enhance the ecological function of diverse natural habitats and biological resources.

Resources	Policy C/NR 3.2: Create and administer innovative County programs incentivizing the permanent dedication of SEAs and other important biological resources as open space areas.
	Policy C/NR 3.3: Restore upland communities and significant riparian resources, such as degraded streams, rivers, and wetlands to maintain ecological function—acknowledging the importance of incrementally restoring ecosystem values when complete restoration is not feasible.
	Policy C/NR 3.4: Conserve and sustainably manage forests and woodlands.
	Policy C/NR 3.5: Ensure compatibility of development in the National Forests in conjunction with the U.S. Forest Service Land and Resource Management Plan.
	Policy C/NR 3.6: Assist state and federal agencies and other agencies, as appropriate, with the preservation of special status species and their associated habitat and wildlife movement corridors through the administration of the SEAs and other programs.
	Policy C/NR 3.7: Participate in inter-jurisdictional collaborative strategies that protect biological resources.
Site Sensitive Design	Policy C/NR 3.8: Discourage development in areas with identified significant biological resources, such as SEAs.
	Policy C/NR 3.9: Consider the following in the design of a project that is located within an SEA, to the greatest extent feasible: • Preservation of biologically valuable habitats, species, wildlife corridors and linkages; • Protection of sensitive resources on the site within open space; • Protection of water sources from hydromodification in order to maintain the ecological function of riparian habitats; • Placement of the development in the least biologically sensitive areas on the site (prioritize the preservation or avoidance of the most sensitive biological resources onsite); • Design required open spaces to retain contiguous undisturbed open space that preserves the most sensitive biological resources onsite and/or serves to maintain regional connectivity; • Maintenance of watershed connectivity by capturing, treating, retaining, and/or infiltrating storm water flows on site; and • Consideration of the continuity of onsite open space with adjacent open space in project design.
	Policy C/NR 3.10: Require environmentally superior mitigation for unavoidable impacts on biologically sensitive areas, and permanently preserve mitigation sites.
	Policy C/NR 3.11: Discourage development in riparian habitats, streambeds, wetlands, and other native woodlands in order to maintain and support their preservation in a natural state, unaltered by grading, fill, or diversion activities.
Goal C/NR 4: Conserved and sustainably managed woodlands.	

Topic	Policy
Woodland Preservation	Policy C/NR 4.1: Preserve and restore oak woodlands and other native woodlands that are conserved in perpetuity with a goal of no net loss of existing woodlands.
Goal C/NR5: Protected and useable local surface water resources.	
Topic	**Policy**
Surface Water Protection	Policy C/NR 5.1: Support the LID philosophy, which seeks to plan and design public and private development with hydrologic sensitivity, including limits to straightening and channelizing natural flow paths, removal of vegetative cover, compaction of soils, and distribution of naturalistic BMPs at regional, neighborhood, and parcel-level scales.
	Policy C/NR 5.2: Require compliance by all County departments with adopted Municipal Separate Storm Sewer System (MS4), General Construction, and point source NPDES permits.
	Policy C/NR 5.3: Actively engage with stakeholders in the formulation and implementation of surface water preservation and restoration plans, including plans to improve impaired surface water bodies by retrofitting tributary watersheds with LID types of BMPs.
	Policy C/NR 5.4: Actively engage in implementing all approved Enhanced Watershed Management Programs/Watershed Management Programs and Coordinated Integrated Monitoring Programs/Integrated Monitoring Programs or other County-involved TMDL implementation and monitoring plans.
	Policy C/NR 5.5: Manage the placement and use of septic systems in order to protect nearby surface water bodies.
	Policy C/NR 5.6: Minimize point and non-point source water pollution.
	Policy C/NR 5.7: Actively support the design of new and retrofit of existing infrastructure to accommodate watershed protection goals, such as roadway, railway, bridge, and other—particularly—tributary street and greenway interface points with channelized waterways.
Goal C/NR 6: Protected and usable local groundwater resources.	
Topic	**Policy**
Groundwater Protection	Policy C/NR 6.1: Support the LID philosophy, which incorporates distributed, post-construction parcel-level stormwater infiltration as part of new development.
	Policy C/NR 6.2: Protect natural groundwater recharge areas and regional spreading grounds.
	Policy C/NR 6.3: Actively engage in stakeholder efforts to disperse rainwater and stormwater infiltration BMPs at regional, neighborhood, infrastructure, and parcel-level scales.
	Policy C/NR 6.4: Manage the placement and use of septic systems in order to protect high groundwater.

	Policy C/NR 6.5: Prevent stormwater infiltration where inappropriate and unsafe, such as in areas with high seasonal groundwater, on hazardous slopes, within 100 feet of drinking water wells, and in contaminated soils.
Goal C/NR 7: Protected and healthy watersheds.	
Topic	**Policy**
Watershed Protection	Policy C/NR 7.1: Support the LID philosophy, which mimics the natural hydrologic cycle using undeveloped conditions as a base, in public and private land use planning and development design.
	Policy C/NR 7.2: Support the preservation, restoration and strategic acquisition of available land for open space to preserve watershed uplands, natural streams, drainage paths, wetlands, and rivers, which are necessary for the healthy function of watersheds.
	Policy C/NR 7.3: Actively engage with stakeholders to incorporate the LID philosophy in the preparation and implementation of watershed and river master plans, ecosystem restoration projects, and other related natural resource conservation aims, and support the implementation of existing efforts, including Watershed Management Programs and Enhanced Watershed Management Programs.
	Policy C/NR 7.4: Promote the development of multi-use regional facilities for stormwater quality improvement, groundwater recharge, detention/attenuation, flood management, retaining non-stormwater runoff, and other compatible uses.
Goal C/NR 8: Productive farmland that is protected for local food production, open space, public health, and the local economy.	
Topic	**Policy**
Agricultural Resources	Policy C/NR 8.1: Protect ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, from encroaching development and discourage incompatible adjacent land uses.
	Policy C/NR 8.2: Discourage land uses in ARAs, and other land identified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance by the California Department of Conservation, that are incompatible with agricultural activities.
	Policy C/NR 8.3: Encourage agricultural activities within ARAs.
Goal C/NR 9: Sustainable agricultural practices.	
Topic	**Policy**
Sustainable Agricultural Practices	Policy C/NR 9.1: Support agricultural practices that minimize and reduce soil loss, minimize pesticide use, and prevent water runoff from leaching pesticide and fertilizer into groundwater and affecting water, soil, and air quality.
	Policy C/NR 9.2: Support innovative agricultural practices that conserve resources and promote sustainability, such as drip irrigation, hydroponics, organic farming, and the use of compost.

	Policy C/NR 9.3: Support farmers markets, farm stands, and community-supported agriculture.
	Policy C/NR 9.4: Support countywide community garden and urban farming programs.
	Policy C/NR 9.5: Discourage the conversion of native vegetation to agricultural uses.
Goal C/NR 10: Locally available mineral resources to meet the needs of construction, transportation, and industry.	
Topic	**Policy**
Mineral Resource Zone Protection	Policy C/NR 10.1: Protect MRZ-2s and access to MRZ-2s from development and discourage incompatible adjacent land uses.
	Policy C/NR 10.2: Prior to permitting a use that threatens the potential to extract minerals in an identified Mineral Resource Zone, the County shall prepare a statement specifying its reasons for permitting the proposed use, and shall forward a copy to the State Geologist and the State Mining and Geology Board for review, in accordance with the Public Resources Code, as applicable.
	Policy C/NR 10.3: Recognize newly identified MRZ-2s within 12 months of transmittal of information by the State Mining and Geology Board.
	Policy C/NR 10.4: Work collaboratively with agencies to identify Mineral Resource Zones and to prioritize mineral land use classifications in regional efforts.
	Policy C/NR 10.5: Manage mineral resources in a manner that effectively plans for access to, development and conservation of, mineral resources for existing and future generations. Policy C/NR 10.6: Require that new non-mining land uses adjacent to existing mining operations be designed to provide a buffer between the new development and the mining operations. The buffer distance shall be based on an evaluation of noise, aesthetics, drainage, operating conditions, biological resources, topography, lighting, traffic, operating hours, and air quality.
Goal C/NR 11: Mineral extraction and production activities that are conducted in a manner that minimizes impacts to the environment.	
Topic	**Policy**
Mineral Extraction	Policy C/NR 11.1: Require mineral resource extraction and production activities and drilling for and production of oil and natural gas to comply with County regulations and state requirements, such as SMARA, and DOGGR regulations.
	Policy C/NR 11.2: Require the reclamation of abandoned surface mines to productive second uses.
	Policy C/NR 11.3: Require appropriate levels of remediation for all publicly-owned oil and natural gas production sites based on possible future uses.
	Policy C/NR 11.4: Require that mineral resource extraction and production operations, as well as activities related to the drilling for and production of oil and natural gas, be conducted to protect other natural resources and prevent excessive grading in hillside areas.

	Policy C/NR 11.5: Encourage and support efforts to increase the safety of oil and gas production and processing activities, including state regulations related to well stimulation techniques such as hydraulic fracturing or “fracking.”
Goal C/NR 12: Sustainable management of renewable and non-renewable energy resources.	
Topic	**Policy**
Energy Resources	Policy C/NR 12.1: Encourage the production and use of renewable energy resources.
	Policy C/NR 12.2: Encourage the effective management of energy resources, such as ensuring adequate reserves to meet peak demands.
	Policy C/NR12.3: Encourage distributed systems that use existing infrastructure and reduce environmental impacts.
Goal C/NR 13: Protected visual and scenic resources.	
Topic	**Policy**
Scenic Resource Protection	Policy C/NR 13.1: Protect scenic resources through land use regulations that mitigate development impacts.
	Policy C/NR 13.2: Protect ridgelines from incompatible development that diminishes their scenic value.
	Policy C/NR 13.3: Reduce light trespass, light pollution and other threats to scenic resources.
	Policy C/NR 13.4: Encourage developments to be designed to create a consistent visual relationship with the natural terrain and vegetation.
	Policy C/NR 13.5: Encourage required grading to be compatible with the existing terrain.
	Policy C/NR 13.6: Prohibit outdoor advertising and billboards along scenic routes, corridors, waterways, and other scenic areas.
	Policy C/NR 13.7: Encourage the incorporation of roadside rest stops, vista points, and interpretive displays into projects in scenic areas.
Hillside Management	Policy C/NR 13.8: Manage development in HMAs to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.
	Policy C/NR 13.9: Consider the following in the design of a project that is located within an HMA, to the greatest extent feasible: • Public safety and the protection of hillside resources through the application of safety and conservation design standards; • Maintenance of large contiguous open areas that limit exposure to landslide, liquefaction and fire hazards and protect natural features, such as significant ridgelines, watercourses and SEAs.

	Policy C/NR 13.10: To identify significant ridgelines, the following criteria must be considered: • Topographic complexity; • Uniqueness of character and location; • Presence of cultural or historical landmarks; • Visual dominance on the skyline or viewshed, such as the height and elevation of a ridgeline; and • Environmental significance to natural ecosystems, parks, and trail systems.
Goal C/NR 14: Protected historic, cultural, and paleontological resources.	
Topic	**Policy**
Historic, Cultural, and Paleontological Resource Protection	Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.
	Policy C/NR 14.2: Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.
	Policy C/NR 14.3: Support the preservation and rehabilitation of historic buildings.
	Policy C/NR 14.4: Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).
	Policy C/NR 14.5: Promote public awareness of historic, cultural, and paleontological resources.
	Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

Parks and Recreation Element Goals and Policies

Goal P/R 1: Enhanced active and passive park and recreation opportunities for all users.	
Topic	**Policy**
Park Programming	Policy P/R 1.1: Provide opportunities for public participation in designing and planning parks and recreation programs.
	Policy P/R 1.2: Provide additional active and passive recreation opportunities based on a community's setting, and recreational needs and preferences.
	Policy P/R 1.3: Consider emerging trends in parks and recreation when planning for new parks and recreation programs.
	Policy P/R 1.4: Promote efficiency by building on existing recreation programs.
Park Management	Policy P/R 1.5: Ensure that County parks and recreational facilities are clean, safe, inviting, usable and accessible.
	Policy P/R 1.6: Improve existing parks with needed amenities and address deficiencies identified through the park facility inventories.
	Policy P/R 1.7: Ensure adequate staffing, funding, and other resources to maintain satisfactory service levels at all County parks and recreational facilities.
	Policy P/R 1.8: Enhance existing parks to offer balanced passive and active recreation opportunities through more efficient use of space and the addition of new amenities.
	Policy P/R 1.9: Offer more lighted playing fields using energy efficient light fixtures to extend playing time, where appropriate (eg., not in areas adjacent to open space or natural areas that can be impacted by spillover lighting).
	Policy P/R 1.10: Ensure a balance of passive and recreational activities in the development of new park facilities.
	Policy P/R 1.11: Provide access to parks by creating pedestrian and bicycle-friendly paths and signage regarding park locations and distances.
Goal P/R 2: Enhanced multi-agency collaboration to leverage resources.	
Topic	**Policy**
Collaboration and Financing	Policy P/R 2.1: Develop joint-use agreements with other public agencies to expand recreation services.
	Policy P/R 2.2: Establish new revenue generating mechanisms to leverage County resources to enhance existing recreational facilities and programs.
	Policy P/R 2.3: Build multi-agency collaborations with schools, libraries, non-profit, private, and other public organizations to leverage capital and operational resources.

	Policy P/R 2.4: Utilize school and library facilities for County sponsored and community sponsored recreational programs and activities.
	Policy P/R 2.5: Support the development of multi-benefit parks and open spaces through collaborative efforts among entities such as cities, the County, state, and federal agencies, private groups, schools, private landowners, and other organizations.
	Policy P/R 2.6: Participate in joint powers authorities (JPAs) to develop multi-benefit parks as well as regional recreational facilities.
	Policy P/R 2.7: Increase communication and partnerships with local law enforcement, neighborhood watch groups, and public agencies to improve safety in parks.
Mass Care and Shelters	Policy P/R 2.8: Evaluate and enhance facilities and amenities with respect to alternative use of parks to carry out Mass Care and Shelter operations in the wake of a disaster.
Goal P/R 3: Acquisition and development of additional parkland.	
Topic	**Policy**
Parkland Acquisition and Dedication	Policy P/R 3.1: Acquire and develop local and regional parkland to meet the following County goals: 4 acres of local parkland per 1,000 residents in the unincorporated areas and 6 acres of regional parkland per 1,000 residents of the total population of Los Angeles County.
	Policy P/R 3.2: For projects that require zone change approvals, general plan amendments, specific plans, or development agreements, work with developers to provide for local and regional parkland above and beyond their Quimby obligations.
	Policy P/R 3.3: Provide additional parks in communities with insufficient local parkland as identified through the gap analysis.
	Policy P/R 3.4: Expand the supply of regional parks by acquiring land that would: 1) provide a buffer from potential threats that would diminish the quality of the recreational experience; 2) protect watersheds; and 3) offer linkages that enhance wildlife movements and biodiversity.
	Policy P/R 3.5: Collaborate with other public, non-profit, and private organizations to acquire land for parks.
	Policy P/R 3.6: Pursue a variety of opportunities to secure property for parks and recreational facilities, including purchase, grant funding, private donation, easements, surplus public lands for park use, and dedication of private land as part of the development review process.
Parkland Development	Policy P/R 3.7: Mitigate impacts from freeways to new parks to the extent feasible.
	Policy P/R 3.8: Site new parks near schools, libraries, senior centers and other community facilities where possible.
	Policy P/R 3.9: The Department of Parks and Recreation does not accept undeveloped park sites from developers. Developers are required to provide a developed park to the County on a “turn-key” basis and receive credit for the costs of developing the public park up to and against any remaining Quimby obligation, after accounting for the net acreage dedicated to the County.

Goal P/R 4: Improved accessibility and connectivity to a comprehensive trail system including rivers, greenways, and community linkages.	
Topic	**Policy**
Trail System	Policy P/R 4.1: Create multi-use trails to accommodate all users.
	Policy P/R 4.2: Develop staging areas and trail heads at strategic locations to accommodate multi-use trail users.
	Policy P/R 4.3: Develop a network of feeder trails into regional trails.
	Policy P/R 4.4: Maintain and design multi-purpose trails in ways that minimize circulation conflicts among trail users.
	Policy P/R 4.5: Collaborate with other public, non-profit, and private organizations in the development of a comprehensive trail system.
	Policy P/R 4.6: Create new multi-use trails that link community destinations including parks, schools and libraries.
Goal P/R 5: Protection of historical and natural resources on County park properties.	
Topic	**Policy**
Park Resource Preservation	Policy P/R 5.1: Preserve historic resources on County park properties, including buildings, collections, landscapes, bridges, and other physical features.
	Policy P/R 5.2: Expand the collection of historical resources under the jurisdiction of the County, where appropriate.
	Policy P/R 5.3: Protect and conserve natural resources on County park properties, including natural areas, sanctuaries, and open space preserves.
	Policy P/R 5.4: Ensure maintenance, repair, rehabilitation, restoration, or reconstruction of historical resources in County parks and recreational facilities are carried out in a manner consistent with the most current Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.
Education and Programming	Policy P/R 5.5: Preserve and develop facilities that serve as educational resources that improve community understanding of and appreciation for natural areas, including watersheds.
	Policy P/R 5.6: Promote the use of County parks and recreational facilities for educational purposes, including a variety of classes and after school programs.
	Policy P/R 5.7: Integrate a range of cultural arts programs into existing activities, and partner with multicultural vendors and organizations.
Goal P/R 6: A sustainable parks and recreation system.	

Topic	Policy
Sustainable Parks System	Policy P/R 6.1: Support the use of recycled water for landscape irrigation in County parks.
	Policy P/R 6.2: Support the use of alternative sources of energy, such as wind and solar sources to reduce the use of energy at existing parks.
	Policy P/R 6.3: Prolong the life of existing buildings and facilities on County park properties through preventative maintenance programs and procedures.
	Policy P/R 6.4: Ensure that new buildings on County park properties are environmentally sustainable by reducing carbon footprints, and conserving water and energy.
	Policy P/R 6.5: Ensure the routine maintenance and operations of County parks and recreational facilities to optimize water and energy conservation.

Noise Element Goals and Policies

Goal N 1: The reduction of excessive noise impacts.	
Topic	**Policy**
Reducing Noise Impacts	Policy N 1.1: Utilize land uses to buffer noise-sensitive uses from sources of adverse noise impacts.
	Policy N 1.2: Reduce exposure to noise impacts by promoting land use compatibility.
	Policy N 1.3: Minimize impacts to noise-sensitive land uses by ensuring adequate site design, acoustical construction, and use of barriers, berms, or additional engineering controls through Best Available Technologies (BAT).
	Policy N 1.4: Enhance and promote noise abatement programs in an effort to maintain acceptable levels of noise as defined by the Los Angeles County Exterior Noise Standards and other applicable noise standards.
	Policy N 1.5: Ensure compliance with the jurisdictions of State Noise Insulation Standards (Title 24, California Code of Regulations and Chapter 35 of the Uniform Building Code), such as noise insulation of new multifamily dwellings constructed within the 60 dB (CNEL or Ldn) noise exposure contours.
	Policy N 1.6: Ensure cumulative impacts related to noise do not exceed health-based safety margins.
	Policy N 1.7: Utilize traffic management and noise suppression techniques to minimize noise from traffic and transportation systems.
	Policy N 1.8: Minimize noise impacts to pedestrians and transit-riders in the design of transportation facilities and mobility networks.
	Policy N 1.9: Require construction of suitable noise attenuation barriers on noise sensitive uses that would be exposed to exterior noise levels of 65 dBA CNEL and above, when unavoidable impacts are identified.
	Policy N 1.10: Orient residential units away from major noise sources (in conjunction with applicable building codes).
	Policy N 1.11: Maximize buffer distances and design and orient sensitive receptor structures (hospitals, residential, etc.) to prevent noise and vibration transfer from commercial/light industrial uses.
	Policy N 1.12: Decisions on land adjacent to transportation facilities, such as the airports, freeways and other major highways, must consider both existing and future noise levels of these transportation facilities to assure the compatibility of proposed uses.

Safety Element Goals and Policies

Goal S 1: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards.	
Topic	**Policy**
Geotechnical Hazards	Policy S 1.1: Discourage development in Seismic Hazard and Alquist-Priolo Earthquake Fault Zones.
	Policy S 1.2: Prohibit the construction of most structures for human occupancy adjacent to active faults until a comprehensive fault study that addresses the potential for fault rupture has been completed.
	Policy S 1.3: Require developments to mitigate geotechnical hazards, such as soil instability and landsliding, in Hillside Management Areas through siting and development standards.
	Policy S 1.4: Support the retrofitting of unreinforced masonry structures to help reduce the risk of structural and human loss due to seismic hazards.
Goal S 2: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to flood and inundation hazards.	
Topic	**Policy**
Flood Hazards	Policy S 2.1: Discourage development in the County's Flood Hazard Zones.
	Policy S 2.2: Discourage development from locating downslope from aqueducts.
	Policy S 2.3: Consider climate change adaptation strategies in flood and inundation hazard planning.
	Policy S 2.4: Ensure that developments located within the County's Flood Hazard Zones are sited and designed to avoid isolation from essential services and facilities in the event of flooding.
	Policy S 2.5: Ensure that the mitigation of flood related property damage and loss limits impacts to biological and other resources.
	Policy S 2.6: Work cooperatively with public agencies with responsibility for flood protection, and with stakeholders in planning for flood and inundation hazards.
	Policy S 2.7: Locate essential public facilities, such as hospitals and fire stations, outside of Flood Hazard Zones, where feasible.
Goal S 3: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to fire hazards.	
Topic	**Policy**
Fire Hazards	Policy S 3.1: Discourage high density and intensity development in VHFHSZs.

	Policy S 3.2: Consider climate change implications in fire hazard reduction planning for FHSZs.
	Policy S 3.3: Ensure that the mitigation of fire related property damage and loss in FHSZs limits impacts to biological and other resources.
	Policy S 3.4: Reduce the risk of wildland fire hazards through the use of regulations and performance standards, such as fire resistant building materials, vegetation management, fuel modification and other fire hazard reduction programs.
	Policy S 3.5: Encourage the use of low-volume and well-maintained vegetation that is compatible with the area's natural vegetative habitats.
	Policy S 3.6: Ensure adequate infrastructure, including ingress, egress, and peak load water supply availability for all projects located in FHSZs.
	Policy S 3.7: Site and design developments located within FHSZs, such as in areas located near ridgelines and on hilltops, in a sensitive manner to reduce the wildfire risk.
	Policy S 3.8: Support the retrofitting of existing structures in FHSZs to help reduce the risk of structural and human loss due to wildfire.
	Policy S 3.9: Adopt by reference the County of Los Angeles Fire Department Strategic Fire Plan, as amended.
	Policy S 3.10: Map oak woodlands in Los Angeles County as part of implementation of theOak Woodlands Conservation Management Plan.
	Policy S 3.11: Support efforts to address unique pest, disease, exotic species and other forest health issues in open space areas to reduce fire hazards and support ecological integrity.
	Policy S 3.12: Support efforts to incorporate systematic fire protection improvements for open space, including facilitation of safe fire suppression tactics, standards for adequate access for firefighting, fire mitigation planning with landowners and other stakeholders, and water sources for fire suppression.

Public Services and Facilities Element Goals and Policies

Goal PS/F 1: A coordinated, reliable, and equitable network of public facilities that preserves resources, ensures public health and safety, and keeps pace with planned development.	
Topic	**Policy**
Sufficient Infrastructure	Policy PS/F 1.1: Discourage development in areas without adequate public services and facilities.
	Policy PS/F 1.2: Ensure that adequate services and facilities are provided in conjunction with development through phasing or other mechanisms.
	Policy PS/F 1.3: Ensure coordinated service provision through collaboration between County departments and service providers.
	Policy PS/F 1.4: Ensure the adequate maintenance of infrastructure.
	Policy PS/F 1.5: Focus infrastructure investment, maintenance and expansion efforts where the General Plan encourages development.
	Policy PS/F 1.6: Support multi-faceted public facility expansion efforts, such as substations, mobile units, and satellite offices.
	Policy PS/F 1.7: Consider resource preservation in the planning of public facilities.
Goal PS/F 2: Increased water conservation efforts.	
Topic	**Policy**
Water Conservation	Policy PS/F 2.1: Support water conservation measures.
	Policy PS/F 2.2: Support educational outreach efforts that discourage wasteful water consumption.
Goal PS/F 3: Increased local water supplies through the use of new technologies.	
Topic	**Policy**
Water Supply	Policy PS/F 3.1: Increase the supply of water though the development of new sources, such as recycled water, gray water, and rainwater harvesting.
	Policy PS/F 3.2: Support the increased production, distribution and use of recycled water, gray water, and rainwater harvesting to provide for groundwater recharge, seawater intrusion barrier injection, irrigation, industrial processes and other beneficial uses.
Goal PS/F 4: Reliable sewer and urban runoff conveyance treatment systems.	
Topic	**Policy**

Sanitary Sewers	Policy PS/F 4.1: Encourage the planning and continued development of efficient countywide sewer conveyance treatment systems.
	Policy PS/F 4.2: Support capital improvement plans to improve aging and deficient wastewater systems, particularly in areas where the General Plan encourages development, such as TODs.
	Policy PS/F 4.3: Ensure the proper design of sewage treatment and disposal facilities, especially in landslide, hillside, and other hazard areas.
	Policy PS/F 4.4: Evaluate the potential for treating stormwater runoff in wastewater management systems or through other similar systems and methods.
Goal PS/F 5: Adequate disposal capacity and minimal waste and pollution.	
Topic	**Policy**
Waste Management	Policy PS/F 5.1: Maintain an efficient, safe and responsive waste management system that reduces waste while protecting the health and safety of the public.
	Policy PS/F 5.2: Ensure adequate disposal capacity by providing for environmentally sound and technically feasible development of solid waste management facilities, such as landfills and transfer/processing facilities.
	Policy PS/F 5.3: Discourage incompatible land uses near or adjacent to solid waste disposal facilities identified in the Countywide Integrated Waste Management Plan.
Waste Diversion	Policy PS/F 5.4: Encourage solid waste management facilities that utilize conversion and other alternative technologies and waste to energy facilities.
	Policy PS/F 5.5: Reduce the County's waste stream by minimizing waste generation and enhancing diversion.
	Policy PS/F 5.6: Encourage the use and procurement of recyclable and biodegradable materials.
	Policy PS/F 5.7: Encourage the recycling of construction and demolition debris generated by public and private projects.
	Policy PS/F 5.8: Ensure adequate and regular waste and recycling collection services.
	Policy PS/F 5.9: Encourage the availability of trash and recyclables containers in new developments, public streets, and large venues.
Goal PS/F 6: A County with adequate public utilities.	
Topic	**Policy**
Utility Infrastructure	Policy PS/F 6.1: Ensure efficient and cost-effective utilities that serve existing and future needs.
	Policy PS/F 6.2: Improve existing wired and wireless telecommunications infrastructure.

	Policy PS/F 6.3: Expand access to wireless technology networks, while minimizing visual impacts through co-location and design.
	Policy PS/F 6.4: Protect and enhance utility facilities to maintain the safety, reliability, integrity and security of utility services.
	Policy PS/F 6.5: Encourage the use of renewable energy sources in utility and telecommunications networks.
	Policy PS/F 6.6: Encourage the construction of utilities underground, where feasible.
	Policy PS/F 6.7: Discourage above-ground electrical distribution and transmission lines in hazard areas.
	Policy PS/F 6.8: Encourage projects that incorporate onsite renewable energy systems.
	Policy PS/F 6.9: Support the prohibition of public access within, and the limitation of access in areas adjacent to natural gas storage facilities and oil and gas production and processing facilities to minimize trespass and ensure security.
	Policy PS/F 6.10: Encourage utility siting to be localized and decentralized to reduce impacts; reduce transmission losses; promote local conservation by connecting users to their systems more directly; and reduce system malfunctions.
Goal PS/F 7: A County with adequate educational facilities.	
Topic	**Policy**
Early Care and Educational Facilities	Policy PS/F 7.1: Encourage the joint-use of school sites for community activities and other appropriate uses.
	Policy PS/F 7.2: Proactively work with school facilities and education providers to coordinate land use and facilities planning.
	Policy PS/F 7.3: Encourage adequate facilities for early care and education.
Goal PS/F 8: A comprehensive public library system.	
Topic	**Policy**
Library System	Policy PS/F 8.1: Ensure a desired level of library service through coordinated land use and facilities planning.
	Policy PS/F 8.2: Support library mitigation fees that adequately address the impacts of new development.

Economic Development Element Goals and Policies

Goal ED 1: An economic base and fiscal structures that attract and retain valuable industries and businesses.	
Topic	**Policy**
Target Industries	Policy ED 1.1: Encourage a diverse mix of industries and services in each Planning Area.
	Policy ED 1.2: Encourage and foster the development of the renewable energy economic sectors.
	Policy ED 1.3: Encourage public-private partnerships to support the growth of target industries.
	Policy ED 1.4: Encourage the expansion and retention of targeted industries and other growth economic sectors, such as the entertainment industry, aerospace industry, agriculture, transportation/logistics, healthcare, biomed/biotech, hospitality and tourism.
County Incentives for Business	Policy ED 1.5: Provide quality, responsible, and business-friendly municipal services to attract and retain businesses and employees.
	Policy ED 1.6: Develop, advance, and promote competitive advantages for economic development and growth.
	Policy ED 1.7: Identify opportunities to lower the costs of doing business in Los Angeles County.
	Policy ED 1.8: Promote Los Angeles County as a national and international center for business, global trade, and development.
Goal ED 2: Land use practices and regulations that foster economic development and growth.	
Topic	**Policy**
Industrial Land	Policy ED 2.1: Protect industrial lands, especially within Employment Protection Districts, from conversion to non-industrial uses.
	Policy ED 2.2: Utilize adequate buffering and other land use practices to facilitate the compatibility between industrial and non-industrial uses.
Business and Environmental Justice	Policy ED 2.3: Ensure environmental justice in economic development activities.
	Policy ED 2.4: Ensure high standards of development and encourage environmentally sustainable practices in economic development activities.
	Policy ED 2.5: Encourage employment opportunities to be located in proximity to housing.
	Policy ED 2.6: Encourage community-serving uses, such as child care centers and personal services, to be located in proximity to employment centers.
	Policy ED 2.7: Incentivize economic development and growth along existing transportation corridors and in urbanized areas.

Streamlined Permit Processing	Policy ED 2.8: Streamline the permit review process and other entitlement processes for businesses and industries.
Agriculture	Policy ED 2.9: Support zoning incentives for the operation of farms in Agricultural Resource Areas (ARAs).
Goal ED 3: An expanded and improved infrastructure system to support economic growth and development.	
Topic	**Policy**
Infrastructure Improvements	Policy ED 3.1: Utilize capital improvement plans to prioritize infrastructure investments.
	Policy ED 3.2: Support the use of public-private partnerships to develop, fund, and deliver critical infrastructure.
	Policy ED 3.3: Work with state agencies dedicated to financing important critical infrastructure and economic development projects.
Goal ED 4: Enhanced revitalization activities.	
Topic	**Policy**
Economic Development Strategies	Policy ED 4.1: Develop a range of financial incentives and programs that encourage development and business growth.
	Policy ED 4.2: Support the development of community-level economic development strategies in line with the Los Angeles County Strategic Plan for Economic Development.
	Policy ED 4.3: Support the development of small business assistance and entrepreneurial programs that are focused on management, financial planning, and technology application.
Infill Development	Policy ED 4.4: Incentivize infill development in urban and suburban areas that revitalizes underutilized commercial and industrial areas.
	Policy ED 4.5: Direct resources to economically distressed areas to spur revitalization activities.
	Policy ED 4.6: Retrofit and reuse vacant and underutilized industrial and commercial sites in urban and suburban areas for emerging and targeted industries.
	Policy ED 4.7: Support expedited permitting for green building retrofits.
Goal ED 5: A skilled and educated workforce.	
Topic	**Policy**
Education	Policy ED 5.1: Attract and retain highly-skilled graduates, in particular, graduates of science and engineering programs.

	Policy ED 5.2: Support and create collaborative educational programs that address specific under-employed populations and workforce needs in targeted areas.
	Policy ED 5.3: Encourage outreach efforts to educational and community-learning institutions to expand workforce education programs.
	Policy ED 5.4: Expand functional literacy and English as a Second Language (ESL) programs.
	Policy ED 5.5: Support linked programs that align high schools with community colleges and four-year institutions.
	Policy ED 5.6: Engage employers earlier in the education and workforce development process to ensure work-readiness and a smooth transition from school or training to work placement.
Job Training	Policy ED 5.7: Ensure that businesses have enough skilled workers to meet their workforce needs.
	Policy ED 5.8: Prepare, train, and educate job seekers and incumbent workers to find and advance in high-value, high-wage jobs with built-in career ladders.
	Policy ED 5.9: Promote the attraction, retention and expansion of commercial and industrial firms that provide employment improvement opportunities for unskilled and semi-skilled workers.
	Policy ED 5.10: Initiate vocational training programs that provide the skills necessary for participation in the labor force.
	Policy ED 5.11: Collaborate with the private sector to identify growing workforce needs and link training initiatives to the needs of target industries.
	Policy ED 5.12: Establish employer assistance initiatives to expand skilled trades training and vocational education for high demand occupations.
	Policy ED 5.13: Play a leadership role in convening and coordinating the activities of key regional workforce development system stakeholders, including the six other WIBS that operate within Los Angeles County, as well as community colleges, businesses, K-12 institutions, philanthropic partners and others.
Goal ED 6: Collaborative efforts to implement coordinated economic development activities.	
Topic	**Policy**
Coordinated Economic Development	Policy ED 6.1: Encourage a collaborative inter-agency and inter-jurisdictional environment to align economic development activities and promote information sharing on economic trends, business cycles, best practices, and resources.
	Policy ED 6.2: Analyze emerging trends for policy modification, and maintain and update accurate labor force, market trends, and other important economic data.
	Policy ED 6.3: Strengthen cooperation with private sector organizations, economic development organizations, and community level business groups.

LOS ANGELES COUNTY GENERAL PLAN

APPENDICES

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Appendix A: Land Use Policy Maps

Appendix B: Community Participation, General Plan Guiding Principles and Planning Areas Framework

I. Community Participation

Table B.1 summarizes the County's major outreach efforts to engage with stakeholders on the development of General Plan.

Table B.1 General Plan Community and Stakeholder Outreach Summary

General Plan Update Visioning/EIR Scoping (1999-2003)	SEA workshops and community meetings, 1999-2001. General Plan visioning workshops, 2001. EIR scoping meetings, 2003.
Shaping the Future 2025 (2003-2005)	Draft General Plan goals and policies released to the public, December 2003. 2004 Outreach Campaign: • Public release of Shaping the Future 2025. • *Shaping the Future 2025* mailed out to stakeholders. • Draft posted on the Department of Regional Planning's (DRP) web site and mailed out to County libraries. • Community meetings and invited stakeholder meetings.
Preliminary Draft General Plan (2007)	*Preliminary Draft General Plan* released to public, June 2007. 2007 Outreach Campaign: • Postcard announcements, newspaper advertisements, and press release. • Draft posted on DRP's web site and mailed out to County libraries. • Los Angeles County Regional Planning Commission presentation. • Community meetings and invited stakeholder meetings. • County interdepartmental meetings.
Planning Tomorrow's Great Places (2008)	Planning for Tomorrow's Great Places released to the public, July 2008. 2008 Outreach Campaign: • Postcard announcements, newspaper advertisements, and press

	release. • Draft posted on DRP's web site and mailed out to County libraries. • Los Angeles County Regional Planning Commission presentation, September 2008. • Stakeholder meetings. • Board office and interdepartmental meetings. • Poster plan released to the public, January 2009. • Los Angeles County Regional Planning Commission presentation.
Draft General Plan 2035/EIR Scoping (2011)	Draft General Plan 2035 released to the public, April 2011. 2011 Outreach Campaign: • Postcard and email announcements. • Draft posted on the DRP's web site and mailed out to County libraries. • Los Angeles County Regional Planning Commission presentation, May 2011. • Board office and interdepartmental meetings. • EIR scoping meetings, September 2011. • Stakeholder meetings, September to November 2011.
Draft General Plan 2035 (2012)	Draft General Plan 2035 released to the public, May 2012
Draft General Plan 2035 (2013)	Draft General Plan 2035 released to the public, October 2013. 2013 Outreach Campaign: • Zoning consistency courtesy letters • Stakeholder meetings
Draft General Plan 2035 (2014)	Draft General Plan 2035 released to the public, January 2014. 2014 Outreach Campaign: • Notice of Public Hearing

	• Stakeholder meetings

II. Development of the General Plan Guiding Principles

The County developed the General Plan Guiding Principles—Employ Smart Growth; Ensure Sufficient Community Services and Infrastructure; Provide the Foundation for a Strong and Diversified Economy; Excellence in Environmental Resource Management; and Provide Healthy, Livable and Equitable Communities—to reflect the broadly expressed needs, concerns, and aspirations of residents and stakeholders. The following issues were identified as important topics to be addressed in the General Plan:

Promote a Strong and Diversified Economy

- Provide a wide range of investment opportunities and job choices so that Los Angeles County is less vulnerable to the harmful consequences of economic recessions.
- Provide an adequate supply of land suitable for industry and commerce to ensure a diversified and strong economy.
- Increase training efforts to better prepare the workforce for future industries.

Promote Fiscal, Environmental, and Social Sustainability

- Meet the needs of the current generation without compromising the ability of future generations to meet their needs.
- Encourage practices that maximize user benefit, minimize waste and redundancy, and consistently promote the revitalization, restoration, and enhancement of the built, natural, and social environments.
- Promote the conservation of energy and other valuable natural resources as a basic principle in all planning activities.

Promote Revitalization of Urban Areas

- Direct development opportunities to areas most in need of economic investment.
- Emphasize code enforcement as a means to spur urban redevelopment in economically depressed areas.

Provide Affordable Housing

- Build and maintain a diversity of decent housing at an affordable price.

Provide for Adequate Community Services and Facilities

- Maintain roadways and regulate land uses.
- Provide community services and facilities, such as schools, parks, and libraries that play a significant role in the enrichment of the public consciousness.
- Develop a sense of place for the many neighborhoods within the unincorporated communities of Los Angeles County.
- Ensure proficient emergency service and infrastructure coverage, such as fire protection and wastewater systems, which are necessary for the health and safety of residents and visitors.
- Increase community services, such as daycare and job training centers.

Promote Multimodal Transportation Alternatives and an Efficient Transportation System

- Maintain and maximize the efficiency of the County highway and road network system by integrating and promoting alternative forms of transportation, such as rail, bus, and biking.
- Improve the freight and highway systems for the safe and efficient movement of goods.
- Protect rural communities and rural lifestyles.
- Maintain the unique character and development patterns of unincorporated rural communities.

Conserve Water and Protect its Quality

- Develop and promote strong conservation efforts and preserve land for the natural recharge of groundwater, which is essential to ensure an ongoing adequate supply of quality water.
- Promote the development of a countywide recycled water system.

Protect the Natural Environment, Natural Resources, and Conserve Open Space

- Maintain and protect natural resources, such as clean air and water, wildlife habitat areas, mineral resource areas, agricultural land, national forest land, parks and open space areas, and recreational areas.
- Preserve open space areas that provide valuable recreational, scenic and biological resources for residents.
- Acquire open space and limit development in rural areas.
- Address the regional issue of air quality, which is important in maintaining a high quality of life for residents.

Protect Against Natural and Manmade Hazards

- Create programs to provide current and improved hazard-related information, and strengthen development review procedures and standards.

III. Development of Planning Areas Framework

The Planning Areas Framework for the General Plan was developed using the following sources:

- SCAG subregional boundaries for Los Angeles County;
- Census tract boundaries;
- LAFCO Municipal Service Review areas;
- City and unincorporated community boundaries;
- Physical and geographic boundaries;
- Stakeholder input; and
- Subregional planning initiatives and planning issues.

Appendix C: Land Use Element Resources

I. Hazard, Environmental and Resource Constraints Model

The purpose of the Hazard, Environmental and Resource Constraints Model is to inform the land use policy direction of future community-based planning initiatives, as well as other land use policies, regulations and procedures. In addition, it is a tool to inform stakeholders of potential site constraints and regulations. The Model uses three classifications, which are defined as follows:

- Class I: Land that has minimal hazard, environmental and resource constraints.
- Class II: Land that has moderate hazard, environmental and resource constraints.
- Class III: Land that has severe hazard, environmental and resource constraints.

Figure C.1 is a visual representation of the Hazard, Environmental and Resource Constraints Model. The Model does not represent the constraints cumulatively. For example, if an area is part of a Very High Fire Hazard Severity Zone (Class I) and a Significant Ecological Area (Class II), it is mapped as Class II.

Figure C.1: Hazard, Environmental, and Resource Constraints Model

Table C.1 outlines the constraints incorporated into the model by class, and the source of the data.

Table C.1: Constraints, by Class, and Data Sources

Hazards, Environmental, and Resources	Class I	Class II	Class III	Data Source
FEMA Q3 Flood Zone 100 year		X		Federal Emergency Management Agency
FEMA Q3 Flood Zone 500 year	X			Federal Emergency Management Agency
National Forest		X		United States Forest Service
Open Space			X	Los Angeles County Department of Regional Planning Los Angeles County Assessor's Office GreenInfo Network – California's Protected Areas Database
Significant Ecological Areas (SEAs)		X		Los Angeles County Department of Regional Planning
Environmentally Sensitive Habitat Areas (ESHA)			X	Los Angeles County Department of Regional Planning
Oak Woodlands and Savannahs			X	Los Angeles County Department of Regional Planning

Cold Creek / Dark Canyon Resource Management Area			X	Los Angeles County Department of Regional Planning
Significant Watersheds			X	Los Angeles County Department of Regional Planning
Wildlife Migration Corridor / Habitat Linkages			X	Los Angeles County Department of Regional Planning
Coastal Zone	X			California Coastal Commission
Scenic Highways		X		California Department of Transportation
Significant Ridgelines	X			Los Angeles County Department of Regional Planning
Mineral Resource Zones	X			California Department of Conservation, Division of Mines and Geology
Oil and Gas Resources	X			California Department of Conservation, Division of Oil, Gas and Geothermal
Military Influence Areas	X			Military Operation Areas: Combination of Defense Installation Spatial Data Infrastructure (DISDI) dataset and information derived from the Flight Information Publications (FLIP), FAA Instrument Flight Rules (IFR), and Visual Flight Rules (VFR) data sources. Special Use Areas: Combination of DISDI dataset and information derived from FAA IFR and VFR data sources. Data verified by Regional Airspace Coordinators (RACs). HRAIZs: Air Force, 412 Test Wing Sustainability Office. Military Installations: DISDI dataset.
Dam and Reservoir Innundation Areas	X			California Emergency Management Agency
Tsunami Hazard Areas	X			California Emergency Management Agency University of Southern California California Geological Survey
Very High Fire Hazard Severity Zone		X		California Department of Forestry and Fire Protection, Fire and Resource Assessment Program
Airport Influence Areas	X			Los Angeles County Airport Land Use Commission
Active Fault Trace			X	Los Angeles County General Plan, Fault Rupture Hazards and Historic Seismicity Map
Seismically Induced Landslide Zone		X		California Geological Survey, Seismic Hazard Zone

				Maps
Seismically Induced Liquefaction Zone	X			California Geological Survey, A-P Maps
Alquist-Priolo Earthquake Fault Zone			X	California Geological Survey, Seismic Hazard Zone Maps
Hillside Management Areas: 25% - 49.9%	X			Los Angeles County Department of Regional Planning
Hillside Management Areas: 50% or greater slope		X		Los Angeles County Department of Regional Planning
Agricultural Resource Areas (ARAs)		X		Los Angeles County Department of Regional Planning
Prime Farmland		X		California Department of Conservation, Department of Land Resource Protection
Farmland of Statewide Importance		X		California Department of Conservation, Department of Land Resource Protection
Unique Farmland		X		California Department of Conservation, Department of Land Resource Protection
Farmland of Local Importance		X		California Department of Conservation, Department of Land Resource Protection

II. Land Use Legend

Population Density Standards

California Government Code Section 65302(a) requires general plan land use elements to contain population density standards for land use categories. This section summarizes the expected persons or employees per land use category upon General Plan buildout.

Residential Population Density

Table C.3: Residential Population Density, by Land Use Designation

General Plan Land Use	Acres	Population Density (Persons/Acre)	Population Estimate
Proposed General Plan (not in a community plan)			
General Plan	106,620.82	6.00	640,078.33

CG - General Commercial	961.14	-	-
CM - Major Commercial	0.64	-	-
CR - Rural Commercial	0.62	-	-
H2 - Residential 2	1,462.19	6.2	9,007.1
H5 - Residential 5	1,768.15	15.4	27,229.3
H9 - Residential 9	14,394.37	25.9	373,103.1
H18 - Residential 18	2,469.36	51.8	128,011.0
H30 - Residential 30	808.31	66.7	53,951.4
H50 - Residential 50	117.90	111.6	13,157.3
H100 - Residential 100	4.93	223.2	1,100.9
IH - Heavy Industrial	1,706.47	-	-
IL - Light Industrial	1,853.30	-	-
ML - Military land	36,615.49	-	-
MU - Mixed Use	158.36	167.4	26,509.4
OS-BLM - Bureau of Land Management	75.65	-	-
OS-C - Conservation	7,648.26	**-**	**-**
OS-MR - Mineral Resources	1,088.06	**-**	**-**
OS-NF - National Forest	2,776.64	**-**	**-**
OS-PR - Parks and Recreation	7,105.07	**-**	**-**

OS-W - Water	2,065.21	-	-
P - Public and Semi-Public	6,916.59	-	-
RL1 - Rural Land 1	1,153.26	3.8	4,440.0
RL2 - Rural Land 2	126.33	1.9	243.2
RL10 - Rural Land 10	2,246.56	0.4	864.9
RL20 - Rural Land 20	12,759.03	0.2	2,456.1
RL40 - Rural Land 40	38.42	0.1	4.4
SP - Specific Plan	300.51	-	-
Community Plans			
Altadena Community Plan	5,603.75	10.95	61,358.53
BP - Business Park	38.43	-	-
GC - General Commercial	63.91	-	-
I - Institutions	182.79	-	-
E - Estate/Equestrian (1 du/2.5 gross ac)	93.31	1.5	143.7
LD - Low Density Residential (1 to 6 du/gross ac)	3,067.88	18.5	56,694.2
LMD - Low/Medium Density Residential (6 to 12 du/gross ac)	1.23	37.0	45.6
MD - Medium Density Residential (12 to 22 du/gross ac)	25.89	49.1	1,271.3
MOS - Miscellaneous Open Space	67.92	-	-
MU - Mixed Use "Center"	36.50	49.1	1,792.4

N - Non-Urban (up to 1 du/gross ac)	327.21	1.2	403.3
NF - National Forest and National Forest Managed Lands	416.12	-	-
PR - Public and Private Recreation	103.48	-	-
Public Streets	815.24	-	-
SP - La Vina Specific Plan	218.88	4.6	1,008.0
U - Utilities	144.95	-	-
Antelope Valley Area Plan**	1,130,543.59	0.36	405,410.20
CR - Rural Commercial	1,792.76	-	-
H2 - Residential 2	4,561.90	6.2	28,101.3
H5 - Residential 5	6,686.90	15.4	102,978.3
H9 - Residential 9	453.40	25.9	11,752.2
H18 - Residential 18	120.61	51.8	6,252.6
H30 - Residential 30	83.86	67.0	5,615.2
IH - Heavy Industrial	1,979.63	-	-
IL - Light Industrial	4,172.85	-	-
ML - Military Land	41,779.07	-	-
MU-R - Rural Commercial / Mixed Use	693.07	7.7	5,336.6
OS-BLM - Bureau of Land Management	9,002.19	-	-

OS-C - Conservation	19,670.12	-	-
OS-NF - Open Space National Forest	499,733.50	-	-
OS-PR - Parks and Recreation	19,314.87	-	-
P - Public and Semi-Public	19,870.07	-	-
RL1 - Rural Land 1	10,241.80	3.9	39,430.9
RL2 - Rural Land 2	30,833.14	1.9	59,353.8
RL5 - Rural Land 5	36,329.06	0.8	27,973.4
RL10 - Rural Land 10	203,999.65	0.4	78,539.9
RL20 - Rural Land 20	208,187.48	0.2	40,076.1
W - Water	11,037.65	-	-
East Los Angeles Community Plan	3,380.51	39.94	135,003.24
CC - Community Commercial	94.57	-	-
MC - Major Commercial	63.74	-	-
CM - Commercial Manufacturing	76.46	-	-
CR - Commercial Residential (30 du/ac)	21.83	67.0	1,462.0
I - Industrial	157.78	-	-
LD - Low Density Residential (8 du/ac)	129.61	24.6	3,193.5
LMD - Low/Medium Density Residential (17 du/ac)	642.77	49.0	31,469.9
MD - Medium Density Residential (30 du/ac)	830.12	67.0	55,584.9

P - Public Use	259.07	-	-
RP - Residential Parking	20.55	-	-
1st Street (FS) Zone†	14.37	89.3	1,282.6
3rd Street (TOD) Zone†	63.60	89.3	5,678.4
Atlantic Boulevard (AB) Zone†	8.86	89.3	791.4
Cesar Chavez (CC) Zone†	48.22	89.3	4,305.4
Civic (CV) Zone†	111.97	-	-
Low-Medium Density (LMD) Zone†	584.05	46.8	27,333.6
Neighborhood Center (NC) Zone†	43.70	89.3	3,901.6
Open Space (OS) Zone†	209.21	-	-
Hacienda Heights Community Plan	6,359.66	10.35	65,833.00
CG - General Commercial	131.03	-	-
H2 - Residential 2 (0-2 du/ac)	718.93	6.2	4,428.6
H5 - Residential 5 (0-5 du/ac)	2,110.34	15.4	32,499.1
H9 - Residential 9 (0-9 du/ac)	594.02	27.7	16,466.2
H18 - Residential 18 (9-18 du/ac)	200.65	51.8	10,401.9
H30 - Residential 30 (18-30 du/ac)	10.35	67.0	693.2
H50 - Residential 50 (30-50 du/ac)	7.03	111.6	784.9
IL - Light Industrial	27.95	-	-

OS-C - Open Space Conservation	403.44	-	-
OS-PR - Open Space Parks and Recreation	1,131.34	-	-
P-CS - Public and Semi-Public Community Serving	29.91	-	-
P-TF - Public and Semi-Public - Transportation Facilities	0.00	-	-
P-UF - Public and Semi-Public Utilities and Facilities	132.96	-	-
RL2 - Rural Lands 2 (1du/2ac)	147.59	1.9	284.1
RL10 - Rural Lands 10 (1du/10ac)	714.10	0.4	274.9
Marina Del Rey Local Coastal Land Use Plan	693.67	30.91	21,439.04
B - Boat Storage	18.88	-	-
H - Hotel	26.44	-	-
MC - Marine Commercial	23.94	-	-
O - Office	5.40	-	-
OS - Open Space	41.81	-	-
P - Parking	16.90	-	-
PF - Public Facilities	5.14	-	-
R III - Residential III (35 du/ac)	37.97	78.1	2,966.2
R IV - Residential IV (45 du/ac)	22.60	100.4	2,270.4
R V - Residential V (75 du/ac)	96.79	167.4	16,202.5
SA - Senior Accomodations	2.11	-	-

VS/CC - Visitor-Serving / Convenience Commercial	30.12	-	-
W - Water	365.57	-	-
Rowland Heights Community Plan	7,421.77	6.86	50,899.53
C - Commercial	192.33	-	-
I - Industrial	143.73	-	-
N1 - Non-Urban 1 (0.2 du/ac)	1,459.45	0.8	1,123.8
N2 - Non-Urban 2 (0.3 to 1.0 du/ac)	509.82	3.4	1,729.7
O - Open Space	1,566.17	-	-
TOS - Transitional Open Space (N1)	272.44	0.8	209.8
TOS - Transitional Open Space (N2)	268.05	2.6	695.2
TOS - Transitional Open Space (U1)	252.24	7.4	1,877.9
U1 - Urban 1 (1.1 to 3.2 du/ac)	1,276.27	8.6	10,997.7
U2 - Urban 2 (3.3 to 6.0 du/ac)	1,278.00	17.8	22,728.3
U3 - Urban 3 (6.1 to 12.0 du/ac)	68.27	36.3	2,477.3
U4 - Urban 4 (12.1 to 22.0 du/ac)	51.26	49.1	2,516.8
U5 - Urban 5 (22.1 to 35.0 du/ac)	83.76	78.1	6,543.1
Santa Catalina Island Local Coastal Land Use Plan	46,136.87	0.00	0.00
Commercial - Two Harbors	2.65	-	-
Conservation/Primitive Recreation - Catalina	20,212.26	-	-

Conservation/Recreation - Two Harbors	820.42	-	-
Extractive Use - Catalina	513.74	-	-
Industrial/Transportation - Two Harbors	4.57	-	-
Industrial/Transportation/Utilities - Catalina	171.65	-	-
Lodges/Inns - Two Harbors	14.17	-	-
Marine Commercial - Two Harbors	2.56	-	-
Open Space/Recreation - Two Harbors	107.79	-	-
Open Space/Structured Recreation - Catalina	24,056.73	-	-
Residential Land Uses - Two Harbors	136.21	-	-
undefined* - Two Harbors	3.09	-	-
Utilites/Services - Two Harbors	6.82	-	-
View Corridor - Two Harbors	84.21	-	-
Santa Clarita Valley Area Plan‡	270,888.56	0.9	237,637.9
Non-Residential	270,888.56	0.9	237,637.9
Santa Monica Mountains Local Coastal Plan	51,011.87	0.29	15,042.65
C Commercial	28.88	-	-
CR Visitor-Serving Commercial Recreation-Limited	748.09	-	-
OS Open Space	954.75	-	-
OS-DR Open Space-Deed Restricted	304.17	-	-

OS-P Open Space-Parks	25,815.47	-	-
P Public and Semi-Public Facilities	912.90	-	-
RL1 Rural Residential (1DU/1AC)	64.82	3.4	219.2
RL2 Rural Residential (1DU/2AC)	134.87	1.3	179.0
RL5 Mountain Lands (1DU/5AC)	208.11	0.6	120.1
RL10 Mountain Lands (1DU/10AC)	1,089.51	0.3	299.5
RL20 Mountain Lands (1DU/20AC)	16,092.01	0.1	1,790.8
RL40 Mountain Lands (1DU/40AC)	3,353.94	0.08	257.2
RV Rural Village	1,205.42	8.17	9,848.86
U8 Residential (8 DU/AC)	92.64	21.2	1,965.5
U20 Residential (20 DU/AC)	6.29	57.6	362.4
Santa Monica Mountains North Area Plan	20,162.19	0.47	9,398.95
C - Commercial	119.57	-	-
CR - Commercial Recreation - Limited Intensity	46.72	-	-
N1 - Rural Residential 1 (1 du/ac max)	453.52	2.6	1,172.8
N2 - Rural Residential 2 (1 du/2 ac max)	668.50	1.7	1,123.7
N5 - Mountain Lands 5 (1 du/5 ac max)	2,028.06	0.7	1,388.5
N10 - Mountain Lands 10 (1 du/10 ac max)	4,264.61	0.3	1,419.0
N20 - Mountain Lands 20 (1 du/20 ac max)	5,505.19	0.2	1,059.7

OS - Open Space	774.97	-	-
OS-DR - Open Space Deed Restricted	590.60	-	-
OS-P - Open Space Parks	4,731.18	-	-
OS-W - Open Space Water	38.95	-	-
P - Public and Semi-Public Facilities	514.86	-	-
TC - Transportation Corridor	0.01	-	-
U2 - Residential 2 (2 du/ac max)	251.84	5.5	1,386.0
U4 - Residential 4 (4 du/ac max)	148.00	8.9	1,322.8
U8 - Residential 8 (8 du/ac max)	25.62	20.5	526.4
Twin Lakes Community Plan	45.25	3.8	174.2
RC - Rural Communities	45.25	3.8	174.2
Walnut Park Neighborhood Plan	368.83	37.19	13,717.17
GC - General Commercial	34.66	-	-
MC - Mixed Commercial	11.11	-	-
NP I - Neighborhood Preservation I (1 to 6 du/ac)	166.62	27.7	4,618.7
NP II - Neighborhood Preservation II (6 to 12 du/ac)	20.67	55.4	1,146.1
NR - Neighborhood Revitalization (12 to 30 du/ac)	117.27	67.0	7,852.3
OC - Office Commercial	6.61	-	-
PU/I - Public Use / Institutional	8.28	-	-

R/P - Residential / Parking	3.61	27.7	100.2
West Athens - Westmont	1,489.40	27.22	40,539.00
C.1 - Regional Commercial	44.54	-	-
C.2 - Community Commercial	80.64	-	-
C.3 - Neighborhood Commercial	1.86	-	-
C.4 - Commercial Manufacturing	14.91	-	-
CR - Commercial Recreation	12.61	-	-
OS.1 - Recreation / Open Space	121.54	-	-
PL.1 - Public/Quasi-Public Use	156.54	-	-
RD 2.3 - Single Family Residence (1 to 8 du/ac)	484.80	24.6	11,945.4
RD 3.1 - Two Family Residence (8 to 17 du/ac)	548.77	49.0	26,867.6
RD 3.2 - Medium Density Bonus (17 to 30 du/ac)	19.29	67.0	1,291.8
SCD - Senior Citizen Density Bonus (30 to 50 du/ac)	3.89	111.6	434.2
Grand Total	1,650,726.75	N/A	1,696,531.76

Note: The buildout for residential development on County land outside of community plan areas is based on 80 percent of the maximum residential density, with an exception for densities of no more than one unit per acre, which may buildout at the maximum.

The County includes a number of existing community plan areas. Assumptions for density and floor area ratios were developed in response to development standards in each community plan. Population projections were established by applying County–determined person per household assumptions for single-family and multifamily housing types.

For more detailed information about the Buildout Methodology of the General Plan, please consult Appendix D of the Final Environmental Impact Report.

* At times there are employment generating uses, such as parks or schools, within a residential land use category (please see aforementioned “Buildout Methodology” for more detailed information).

** The Antelope Valley Area Plan was approved by the Board of Supervisors on 11/12/14, but is not yet adopted as of 11/25/14.

† These Categories represent 'Form-Based Zoning Code' found in the 3rd Street Specific Plan - adopted by the Board of Supervisors

on 11/12/14.

‡ The buildout methodology devised by the City of Santa Clarita for the 'One Valley, One Vision' project was used here, hence the numbers are not broken down by Land Use Category (please see aforementioned "Buildout Methodology" for more detailed information).

Source: Los Angeles County Department of Regional Planning, GIS Section.

Employment Population Density

Table C.4: Employment Population Density, by Land Use Designation

General Plan Land Use	Acres	Employee Density (Employees/Acre)	Employee Estimate*
Proposed General Plan (not in a community plan)			
General Plan	106,620.82	1.56	166,036.25
CG - General Commercial	961.14	43.5	41,841.9
CM - Major Commercial	0.64	26.8	17.2
CR - Rural Commercial	0.62	21.3	13.1
H2 - Residential 2	1,462.19	0.07	100.0
H5 - Residential 5	1,768.15	0.06	100.0
H9 - Residential 9	14,394.37	0.2	3,086.4
H18 - Residential 18	2,469.36	0.3	710.6
H30 - Residential 30	808.31	0.5	426.7
H50 - Residential 50	117.90	2.1	250.0
H100 - Residential 100	4.93	-	-
IH - Heavy Industrial	1,706.47	16.7	28,458.4

IL - Light Industrial	1,853.30	16.7	30,907.1
ML - Military land	36,615.49	-	-
MU - Mixed Use	158.36	63.9	10,124.5
OS-BLM - Bureau of Land Management	75.65	-	-
OS-C - Conservation	7,648.26	0.000000003	0.00002
OS-MR - Mineral Resources	1,088.06	0.0004	0.5
OS-NF - National Forest	2,776.64	0.000001	0.004
OS-PR - Parks and Recreation	7,105.07	0.2	1,625.3
OS-W - Water	2,065.21	0.1	307.0
P - Public and Semi-Public	6,916.59	4.2	29,267.0
RL1 - Rural Land 1	1,153.26	0.09	100.7
RL2 - Rural Land 2	126.33	-	-
RL10 - Rural Land 10	2,246.56	0.00000001	0.00002
RL20 - Rural Land 20	12,759.03	0.0000001	0.001
RL40 - Rural Land 40	38.42	-	-
SP - Specific Plan	300.51	62.2	18,700.0
Community Plans			
Altadena Community Plan	5,603.75	3.29	18,463.24
BP - Business Park	38.43	80.0	3,074.9

GC - General Commercial	63.91	146.7	9,375.5
I - Institutions	182.79	4.4	802.7
E - Estate/Equestrian (1 du/2.5 gross ac)	93.31	0.05	4.7
LD - Low Density Residential (1 to 6 du/gross ac)	3,067.88	0.1	377.3
LMD - Low/Medium Density Residential (6 to 12 du/gross ac)	1.23	-	-
MD - Medium Density Residential (12 to 22 du/gross ac)	25.89	0.2	4.0
MOS - Miscellaneous Open Space	67.92	1.5	100.0
MU - Mixed Use "Center"	36.50	120.8	4,410.7
N - Non-Urban (up to 1 du/gross ac)	327.21	-	-
NF - National Forest and National Forest Managed Lands	416.12	-	-
PR - Public and Private Recreation	103.48	1.6	163.5
Public Streets	815.24	-	-
SP - La Vina Specific Plan	218.88	0.7	150.0
U - Utilities	144.95	-	-
Antelope Valley Area Plan**	1,130,543.59	0.12	134,350.51
CR - Rural Commercial	1,792.76	21.4	38,376.5
H2 - Residential 2	4,561.90	0.07	300.0
H5 - Residential 5	6,686.90	0.0000001	0.001

H9 - Residential 9	453.40	0.0000002	0.00009
H18 - Residential 18	120.61	-	-
H30 - Residential 30	83.86	-	-
IH - Heavy Industrial	1,979.63	7.4	14,575.5
IL - Light Industrial	4,172.85	16.7	69,589.8
ML - Military Land	41,779.07	-	-
MU-R - Rural Commercial / Mixed Use	693.07	10.7	7,385.0
OS-BLM - Bureau of Land Management	9,002.19	-	-
OS-C - Conservation	19,670.12	-	-
OS-NF - Open Space National Forest	499,733.50	0.0001	50.0
OS-PR - Parks and Recreation	19,314.87	0.02	346.3
P - Public and Semi-Public	19,870.07	0.2	3,175.0
RL1 - Rural Land 1	10,241.80	0.0002	2.4
RL2 - Rural Land 2	30,833.14	0.01	400.0
RL5 - Rural Land 5	36,329.06	-	-
RL10 - Rural Land 10	203,999.65	0.0005	100.0
RL20 - Rural Land 20	208,187.48	0.0002	50.0
W - Water	11,037.65	-	-
East Los Angeles Community Plan	3,380.51	12.62	42,646.67

CC - Community Commercial	94.57	127.9	12,097.3
MC - Major Commercial	63.74	26.8	1,708.9
CM - Commercial Manufacturing	76.46	46.9	3,583.4
CR - Commercial Residential (30 du/ac)	21.83	102.3	2,233.5
I - Industrial	157.78	33.2	5,234.0
LD - Low Density Residential (8 du/ac)	129.61	-	-
LMD - Low/Medium Density Residential (17 du/ac)	642.77	0.4	242.9
MD - Medium Density Residential (30 du/ac)	830.12	0.9	761.3
P - Public Use	259.07	4.3	1,106.3
RP - Residential Parking	20.55	-	-
1st Street (FS) Zone†	14.37	76.7	1,102.2
3rd Street (TOD) Zone†	63.60	76.7	4,879.5
Atlantic Boulevard (AB) Zone†	8.86	42.6	377.8
Cesar Chavez (CC) Zone†	48.22	76.7	3,699.7
Civic (CV) Zone†	111.97	18.5	2,067.1
Low-Medium Density (LMD) Zone†	584.05	-	-
Neighborhood Center (NC) Zone†	43.70	76.7	3,352.7
Open Space (OS) Zone†	209.21	1.0	200.0
Hacienda Heights Community Plan	6,359.66	2.09	13,310.02

CG - General Commercial	131.03	85.4	11,193.8
H2 - Residential 2 (0-2 du/ac)	718.93	0.1	100.0
H5 - Residential 5 (0-5 du/ac)	2,110.34	0.5	1,000.0
H9 - Residential 9 (0-9 du/ac)	594.02	0.3	200.0
H18 - Residential 18 (9-18 du/ac)	200.65	0.07	14.8
H30 - Residential 30 (18-30 du/ac)	10.35	-	-
H50 - Residential 50 (30-50 du/ac)	7.03	-	-
IL - Light Industrial	27.95	16.7	466.2
OS-C - Open Space Conservation	403.44	-	-
OS-PR - Open Space Parks and Recreation	1,131.34	0.2	200.0
P-CS - Public and Semi-Public Community Serving	29.91	3.3	100.0
P-TF - Public and Semi-Public - Transportation Facilities	0.00	-	-
P-UF - Public and Semi-Public Utilities and Facilities	132.96	-	-
RL2 - Rural Lands 2 (1du/2ac)	147.59	0.2	35.2
RL10 - Rural Lands 10 (1du/10ac)	714.10	-	-
Marina Del Rey Local Coastal Land Use Plan	693.67	6.48	4,492.81
B - Boat Storage	18.88	4.4	82.3
H - Hotel	26.44	38.8	1,027.0

MC - Marine Commercial	23.94	42.6	1,020.2
O - Office	5.40	144.2	779.6
OS - Open Space	41.81	-	-
P - Parking	16.90	-	-
PF - Public Facilities	5.14	48.7	250.0
R III - Residential III (35 du/ac)	37.97	-	-
R IV - Residential IV (45 du/ac)	22.60	-	-
R V - Residential V (75 du/ac)	96.79	-	-
SA - Senior Accomodations	2.11	23.7	50.0
VS/CC - Visitor-Serving / Convenience Commercial	30.12	42.6	1,283.8
W - Water	365.57	-	-
Rowland Heights Community Plan	7,421.77	2.78	20,660.62
C - Commercial	192.33	82.0	15,763.8
I - Industrial	143.73	21.1	3,027.0
N1 - Non-Urban 1 (0.2 du/ac)	1,459.45	-	-
N2 - Non-Urban 2 (0.3 to 1.0 du/ac)	509.82	0.4	200.0
O - Open Space	1,566.17	0.1	193.6
TOS - Transitional Open Space (N1)	272.44	-	-
TOS - Transitional Open Space (N2)	268.05	-	-

TOS - Transitional Open Space (U1)	252.24	-	-
U1 - Urban 1 (1.1 to 3.2 du/ac)	1,276.27	0.3	401.0
U2 - Urban 2 (3.3 to 6.0 du/ac)	1,278.00	0.8	1,075.0
U3 - Urban 3 (6.1 to 12.0 du/ac)	68.27	-	-
U4 - Urban 4 (12.1 to 22.0 du/ac)	51.26	0.003	0.2
U5 - Urban 5 (22.1 to 35.0 du/ac)	83.76	0.000003	0.0003
Santa Catalina Island Local Coastal Land Use Plan	46,136.87	0.01	570.00
Commercial - Two Harbors	2.65	0.4	7.0
Conservation/Primitive Recreation - Catalina	20,212.26	631.6	32.0
Conservation/Recreation - Two Harbors	820.42	47.6	17.2
Extractive Use - Catalina	513.74	-	-
Industrial/Transportation - Two Harbors	4.57	-	-
Industrial/Transportation/Utilities - Catalina	171.65	28.6	6.0
Lodges/Inns - Two Harbors	14.17	-	-
Marine Commercial - Two Harbors	2.56	-	-
Open Space/Recreation - Two Harbors	107.79	47.6	2.3
Open Space/Structured Recreation - Catalina	24,056.73	47.6	505.5
Residential Land Uses - Two Harbors	136.21	-	-
undefined* - Two Harbors	3.09	-	-

Utilites/Services - Two Harbors	6.82	-	-
View Corridor - Two Harbors	84.21	-	-
Santa Clarita Valley Area Plan‡	270,888.56	0.4	105,881.4
Non-Residential	270,888.56	0.4	105,881.4
Santa Monica Mountains Local Coastal Plan	51,011.87	0.38	19,432.62
C Commercial	28.88	24.3	700.8
CR Visitor-Serving Commercial Recreation-Limited	748.09	14.5	10,881.1
OS Open Space	954.75	-	-
OS-DR Open Space-Deed Restricted	304.17	-	-
OS-P Open Space-Parks	25,815.47	0.006	150.0
P Public and Semi-Public Facilities	912.90	8.3	7,600.0
RL1 Rural Residential (1DU/1AC)	64.82	-	-
RL2 Rural Residential (1DU/2AC)	134.87	-	-
RL5 Mountain Lands (1DU/5AC)	208.11	-	-
RL10 Mountain Lands (1DU/10AC)	1,089.51	-	-
RL20 Mountain Lands (1DU/20AC)	16,092.01	-	-
RL40 Mountain Lands (1DU/40AC)	3,353.94	-	-
RV Rural Village	1,205.42	0.08	100.69

U8 Residential (8 DU/AC)	92.64	-	-
U20 Residential (20 DU/AC)	6.29	-	-
Santa Monica Mountains North Area Plan	20,162.19	0.33	6,569.19
C - Commercial	119.57	39.8	4,763.8
CR - Commercial Recreation - Limited Intensity	46.72	25.6	1,194.9
N1 - Rural Residential 1 (1 du/ac max)	453.52	0.05	21.2
N2 - Rural Residential 2 (1 du/2 ac max)	668.50	0.1	100.0
N5 - Mountain Lands 5 (1 du/5 ac max)	2,028.06	0.1	199.8
N10 - Mountain Lands 10 (1 du/10 ac max)	4,264.61	0.05	200.0
N20 - Mountain Lands 20 (1 du/20 ac max)	5,505.19	0.003	16.4
OS - Open Space	774.97	-	-
OS-DR - Open Space Deed Restricted	590.60	0.0000005	0.0003
OS-P - Open Space Parks	4,731.18	0.01	62.0
OS-W - Open Space Water	38.95	0.3	11.1
P - Public and Semi-Public Facilities	514.86	-	-
TC - Transportation Corridor	0.01	0.05	0.0004
U2 - Residential 2 (2 du/ac max)	251.84	-	-
U4 - Residential 4 (4 du/ac max)	148.00	-	-
U8 - Residential 8 (8 du/ac max)	25.62	-	-

Twin Lakes Community Plan	45.25	-	-
RC - Rural Communities	45.25	-	-
Walnut Park Neighborhood Plan	368.83	13.68	5,043.85
GC - General Commercial	34.66	109.2	3,785.7
MC - Mixed Commercial	11.11	42.6	473.6
NP I - Neighborhood Preservation I (1 to 6 du/ac)	166.62	0.6	100.0
NP II - Neighborhood Preservation II (6 to 12 du/ac)	20.67	-	-
NR - Neighborhood Revitalization (12 to 30 du/ac)	117.27	-	-
OC - Office Commercial	6.61	86.5	572.2
PU/I - Public Use / Institutional	8.28	13.6	112.4
R/P - Residential / Parking	3.61	-	-
West Athens - Westmont	1,489.40	7.31	10,893.90
C.1 - Regional Commercial	44.54	23.8	1,059.6
C.2 - Community Commercial	80.64	86.7	6,993.9
C.3 - Neighborhood Commercial	1.86	42.6	79.4
C.4 - Commercial Manufacturing	14.91	21.3	318.4
CR - Commercial Recreation	12.61	0.4	5.0
OS.1 - Recreation / Open Space	121.54	0.6	70.0
PL.1 - Public/Quasi-Public Use	156.54	11.1	1,742.6