

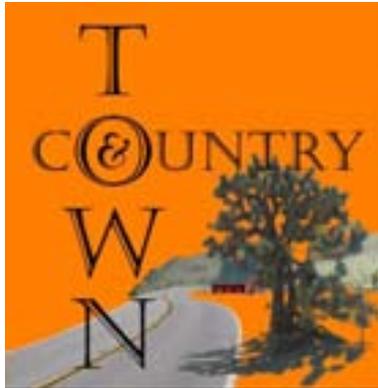
Los Angeles County Department of Regional Planning

Background Report

ANTELOPE VALLEY AREA PLAN UPDATE

April 2009





**Antelope Valley Area Plan Update
Background Report**

April 2009

ACKNOWLEDGEMENTS

DEPARTMENT OF REGIONAL PLANNING

Countywide Studies

Mitch Glaser, AICP
Supervising Regional Planner

Jon Sanabria
Acting Director of Planning

Rob Glaser
Principal Regional Planner

Rose Hamilton, AICP
Acting Deputy Director

Thuy Hua
Senior Regional Planner

Marshall Adams
Assistant Regional Planner

Emma Howard
Assistant Regional Planner

Rick Kuo
Assistant Regional Planner

Geographic Information Systems

Nick Franchino, AICP
GIS Manager

Dan Hoffman
Principal Regional Planner

Chris Morneau
Senior Regional Planner

Martha Selig
Assistant Regional Planner

Contributing Staff

Lee Stark

TABLE OF CONTENTS

INTRODUCTION	1
PLANNING AREA AND REGIONAL SETTING	2
THE ANTELOPE VALLEY TODAY	2
CONTENTS OF THE BACKGROUND REPORT	3
CHAPTER 1 – HISTORY AND ANTELOPE VALLEY GROWTH.....	5
EARLIEST NATIVE AMERICANS	5
LAND BOOM OF THE 1880'S	6
POST WAR POPULATION BOOM	6
CHAPTER 2 – GOVERNANCE & JURISDICTIONAL RESPONSIBILITIES.....	7
LOS ANGELES COUNTY BOARD OF SUPERVISORS	7
LOS ANGELES COUNTY REGIONAL PLANNING COMMISSION	7
TOWN COUNCILS.....	8
CITY OF PALMDALE	8
CITY OF LANCASTER	9
UNINCORPORATED COMMUNITY IDENTIFICATION	9
COMMUNITY STANDARDS DISTRICTS	14
SPHERES OF INFLUENCE	15
CHAPTER 3 – PHYSICAL SETTING & ENVIRONMENTAL RESOURCES.....	17
GEOLOGY.....	17
MINERALS.....	19
BIOLOGICAL RESOURCES	21
SIGNIFICANT ECOLOGICAL AREAS.....	23
SCENIC RESOURCES	26
CLIMATE.....	28
TRAILS.....	28
CHAPTER 4 – POPULATION, HOUSING, AND DEMOGRAPHICS.....	30
POPULATION DEMOGRAPHICS	31
HOUSING CHARACTERISTICS	36
GROWTH PROJECTIONS.....	38
CHAPTER 5 – ECONOMY.....	40
INCOME & EMPLOYMENT.....	40
AGRICULTURE	41
JOBS/HOUSING RATIO	45
EMPLOYMENT PROJECTIONS	46
THE GREATER ANTELOPE VALLEY	47
ECONOMIC OPPORTUNITIES	51

CHAPTER 6 – LAND USE.....	52
1986 ANTELOPE VALLEY AREA WIDE GENERAL PLAN	52
ZONING	53
LAND DEVELOPMENT	54
CURRENT USE OF LAND	54
BUILDING TRENDS.....	56
CHAPTER 7 – INFRASTRUCTURE AND PUBLIC SERVICES.....	58
TRANSPORTATION.....	58
WATER RESOURCES.....	69
PUBLIC SERVICES	75
CHAPTER 8 – HAZARDS AND SAFETY ISSUES/REGULATIONS.....	81
DRAINAGE PATTERNS.....	81
FLOODING	82
NOISE	84
GEOLOGIC AND SOIL STABILITY	87
AIR QUALITY.....	90
HAZARDOUS MATERIALS/WASTE.....	93
STANDARDIZED EMERGENCY MANAGEMENT SYSTEM	95
APPENDIX.....	i

LIST OF MAPS

MAP I-1: Regional Map	2
MAP 2-1: TOWN & COUNTRY Planning Area	14
MAP 2-2: Community Standards Districts.....	15
MAP 2-3: Palmdale and Lancaster Spheres of Influence	16
MAP 3-1: Mineral Resource Zones	20
MAP 3-2: Adopted and Proposed Significant Ecological Areas	25
MAP 3-3: Antelope Valley Trails Plan.....	29
MAP 4-1: Population Density	31
MAP 4-2: Planning Area Census Tracts, 2000	32
MAP 5-1: Farmlands	42
MAP 6-1: 1986 Antelope Valley Area Plan.....	52
MAP 6-2: Generalized Existing Zoning.....	53
MAP 6-3: Generalized Existing Land Use	54
MAP 7-1: Highway Plan	61
MAP 7-2: Sanitation Districts	75
MAP 7-3: Very High Fire Hazard Severity Zone	80
MAP 8-1: Floodways	83
MAP 8-2: Airplane Noise	86
MAP 8-3: Fault Zones	88
MAP 8-4: Liquefaction and Earthquake-Induced Landslide Zones	90

LIST OF TABLES

TABLE 3-1: Parks and Scenic Resources	27
TABLE 4-1: Antelope Valley Population (2000)	31
TABLE 4-2: Population (2000) by Census Tract	33
TABLE 4-3: Racial Mix (2000)	34
TABLE 4-4: Median Age (2000)	34
TABLE 4-5: Median Age (2000) by Census Tract	35
TABLE 4-6: Education of Adults 25 years and older (2000)—Planning Area.....	36
TABLE 4-7: Growth in Housing Units (2004-2006)	36
TABLE 4-8: Housing Units (2000) by Census Tract	37
TABLE 4-9: Median Housing Prices (2005-2008)	38
TABLE 4-10: Housing Affordability Index – First Quarter Average	38
TABLE 4-11: Antelope Valley Population Projections 2000 to 2030	39
TABLE 4-12: Antelope Valley Household Projections 2000 to 2030.....	39
TABLE 5-1: Planning Area Household Income in 1999	40
TABLE 5-2: Industry By Class of Worker for the Employed Civilian Population 16 Years and Over	41
TABLE 5-3: Top Five Crops by Value (2006).....	41
TABLE 5-4: Total Land In Use (Minus Undifferentiated Water and Vacant).....	43
TABLE 5-5: Farmland Type	43
TABLE 5-6: Jobs-Housing Ratio.....	45
TABLE 5-7: Planning Area Travel Time to Work for Workers 16 Years and Over	45
TABLE 5-8: Los Angeles County Travel Time to Work for Workers 16 Years and Over	46
TABLE 5-9: Antelope Valley Employment Projections 2003 to 2030	46
TABLE 5-10: 2003 Household Income Distribution	47
TABLE 5-11: 2007 Industry Group Average Earnings	48
TABLE 5-12: Labor Force Distribution	49
TABLE 5-13: Occupational Skills of Labor Force	50
TABLE 6-1: Existing Land Uses in the Planning Area.....	55
TABLE 7-1: Traffic Volumes	59
TABLE 7-2: Average Freeway Speeds.....	60
TABLE 7-3: Antelope Valley Transit Authority Ridership and Productivity	63
TABLE 7-4: Antelope Valley Transit Authority Ridership.....	63
TABLE 7-5: Metrolink Antelope Valley Line Statistics	65
TABLE 7-6: Antelope Valley Line Station Data	65
TABLE 7-7: Metrolink Antelope Valley Line Service Scenarios 2010-2030	65
TABLE 7-8: Water Reclamation Plant Capacities.....	77
TABLE 7-9: Permitted Landfill Capacity	78
TABLE 7-10: Countywide Solid Waste Disposal.....	78
TABLE 7-11: Antelope Valley Fire Stations.....	79
TABLE 8-1: Common Noise Levels.....	85
TABLE 8-2: Air Pollutants, Sources and Health Effects.....	91

LIST OF FIGURES

FIGURE 4-1: Antelope Valley Household Projections 2000 to 2030	39
FIGURE 5-1: Total Land in Use	43
FIGURE 5-2: Antelope Valley Employment Projections 2003 to 2030.....	46
FIGURE 5-3: Greater Antelope Valley Economic Region	47
FIGURE 5-4: 2007 Industry Group Average Earnings.....	48
FIGURE 5-5: Labor Force Distribution	49
FIGURE 5-6: Occupational Skills of Labor Force	50
FIGURE 6-1: Existing Land Uses in the Planning Area	55
FIGURE 6-2: Building Trends in the Planning Area	56
FIGURE 6-3: Building Development in the Planning Area.....	57
FIGURE 7-1: North County Corridors Plan.....	62
FIGURE 7-2: Proposed California High Speed Rail – Palmdale to Los Angeles Segment	67
FIGURE 7-3: Los Angeles County Waterworks Districts	73
FIGURE 7-4: Existing and Proposed Water Treatment Facilities	74

INTRODUCTION

Picture the old West and you are likely to find a spot that looks quite like your visualization, somewhere in the Antelope Valley. While much of this northern portion of Los Angeles County remains in its natural state—with many residents so protective of this heritage—it has become a valuable land resource for the residential, employment and recreational needs of Los Angeles County residents.

In 1986 the Los Angeles County Board of Supervisors adopted the Antelope Valley Areawide General Plan to guide the growth of this region and to protect its natural resources. This document contains goals and policies specific to this area and has been the foundation for land use decisions since its adoption.

Town & Country is an effort to update this 1986 Plan, with goals addressing current and future needs and revised policies and guidelines reflecting changed conditions, issues and legal requirements. Programs to help achieve these goals and to implement the policies round out the Plan. The Updated Plan serves the unincorporated territory of the Antelope Valley, surrounding the incorporated cities of Palmdale and Lancaster.



Desert landscape

This Background Report (Report) supports Town & Country by providing documentation and statistics that will help formulate the Plan’s goals, policies and programs. This information, along with the input of local citizens and the growth expectations and policies of surrounding jurisdictions and agencies who serve the Antelope Valley’s needs, will shape the Updated Plan into a document ready to guide the growth and preservation of the area for many years. This Report also serves as a resource for future planning and environmental studies in accordance with the California Environmental Quality Act.

For the purposes of this Report, the following terms will be referenced accordingly:

The Plan: 1986 Antelope Valley Areawide General Plan

Updated Plan: Current Town & Country effort to update the 1986 plan

Greater Antelope Valley: Entire geographical region which extends into Kern County and includes the various cities

Antelope Valley: Los Angeles County portion which includes the cities of Lancaster and Palmdale

Planning Area: Los Angeles County portion which excludes the cities of Lancaster and Palmdale and for which The Plan governs

PLANNING AREA AND REGIONAL SETTING

The geographical center of the Antelope Valley is located in Southern California approximately 60 miles north of downtown Los Angeles, comprising much of the northern portion of Los Angeles County. It borders three counties on the east, west, and north. The Angeles National Forest covers much of the southern portion of the Planning Area.

The Plan serves the 1,800 square miles of the unincorporated Los Angeles County area of the Antelope Valley. The Planning Area is larger than the state of Rhode Island, comprising 44% of the entire 4,083 square miles of Los Angeles County. It surrounds the incorporated cities of Palmdale and Lancaster who each have their own planning programs. The Planning Area envelops a wide diversity of rural communities, from Gorman and Three Points to the west, Lake Los Angeles, Llano, and Wrightwood to the east, Roosevelt and Antelope Acres to the north, and Acton and Juniper Hills to the south.

MAP I-1: Regional Map



THE ANTELOPE VALLEY TODAY

Excluding the portion zoned for forests, the balance of the Planning Area is just over 1,000 square miles—largely desert terrain bounded by the San Gabriel Mountains to the south, Kern County to the north, Ventura County to the west, and San Bernardino County to the east. In 2000, it was home to nearly 67,000 persons, most living in one of the many diverse unincorporated communities. It is projected that over 239,000 persons will call the Planning Area their home by 2030.

The attractiveness of its high desert climate and its rural character make Antelope Valley a desirable place for many to live and work. The past decade has seen a significant influx of residents, attributed largely to relatively affordable housing prices compared to other areas of Los Angeles County.

Edwards Air Force Base, noted for its dry lake beds and space shuttle landings, as well as Lockheed's Plant 42 aircraft assembly and testing facility, have been major employers over the past few decades. Many aviation firsts have occurred above the Antelope Valley, including the first flight to break the sound barrier (Charles "Chuck" Yeager, 1947). In contrast to man-made aviation, the California Condor with its seven foot wingspan—still a highly endangered species—can occasionally be seen soaring over the Antelope Valley.



State Route 14

Two major thoroughfares provide access to the Antelope Valley. Running through the far western border of the Planning Area, Interstate 5 links northern and southern California. State Route 14 links the adjacent Santa Clarita Valley just north of metropolitan Los Angeles to the eastern portion of Antelope Valley.

Traversing the Antelope Valley from the northwest toward the southeast is the San Andreas Seismic Fault Zone, an extremely

significant natural structure to consider when designing any plans and standards for development. Not only does it pose potential hazards, it has created many biologically rich areas.

The Antelope Valley should not be categorized by a single “desert” climate with sparse vegetation. In fact, within its expansive borders are found very diverse vegetative communities, geologic forms and climatic conditions, including the Angeles National Forest as well as the Liebre and Sierra Pelona mountain ranges.

CONTENTS OF THE BACKGROUND REPORT

Chapter 1 – History and Antelope Valley Growth

A brief history of the Antelope Valley, from Native American inhabitants to early community settlers, will help set the focus for many unincorporated area residents’ current interest in maintaining a rural character within small communities and the surrounding land. Significant events and major developments will complete this picture of the Antelope Valley’s growth.

Chapter 2 – Governance and Jurisdictional Responsibilities

The political framework of the Antelope Valley is described, differentiating between the cities of Palmdale and Lancaster and the Planning Area under the jurisdiction of the Los Angeles County Board of Supervisors. Today many communities elect Town Council members to oversee local issues and to provide input on important matters to the Board of Supervisors. In addition to countywide regulations and governance, five communities within the Antelope Valley have helped draft regulations specific to their communities, which have been adopted by the Board of Supervisors as Community Standards Districts.

Chapter 3 – Physical Setting and Environmental Resources

This chapter presents information on vegetation and geology, including a survey of scenic assets and an inventory of mineral resource areas. Significant Ecological Areas comprise major portions of the geography as overlays acknowledging unique or prime examples of biological communities. Also included is information on soil types, precipitation and climatic conditions.

Chapter 4 –Population, Housing and Demographics

An overview of both historic and current characteristics of the population, housing stock and related statistics is described here, including the spatial distribution of this data. Projections of population and housing are of paramount importance in establishing the goals, policies and programs within the Updated Plan.

Chapter 5 – Economy

This chapter examines the existing economic conditions in the Planning Area and addresses key economic issues and opportunities. It includes an inventory of major employers, employment projections, a comparison of housing inventory with available jobs (jobs-housing ratio), labor force statistics, and other economic characteristics of the Planning Area.

Chapter 6 – Land Use

The 1986 Antelope Valley Areawide General Plan sets the foundation for development as it has occurred in the last two decades. A framework of existing land use and trends is provided.

Chapter 7 - Infrastructure and Public Services

This chapter contains information on transportation modes and facilities; water, sewage disposal and electrical services; and the operations of fire and law enforcement agencies. Included are any proposed improvements or expansion of these services.

Chapter 8 – Hazards and Safety Issues

Environmental hazards including seismic shaking/rupture and flooding potential as well as air and noise pollution are presented, along with a discussion of regulatory measures in place to help minimize exposure to and loss from these sources of danger.

Appendix

Town Council contact information and detailed maps are included in the Appendix.

EARLIEST NATIVE AMERICANS¹

While the growth within the Antelope Valley over the past 100 years or so helps define its present day character, it is fascinating to imagine the area as it existed 11,000 years ago—when, according to archaeological evidence—native peoples began habitation in the Valley. Then it was not the arid desert of today. Instead, the landscape featured lush vegetation with native bunch grass covering the Valley floor. Water was plentiful, supporting many types of wildlife—long gone from the area. Major trade routes crossed the Valley, linking the coast to the eastern Mojave and Southwest as well as providing north-south connections between the Los Angeles Basin and the Central Valley.

Over time, many groups of Native Americans utilized the Antelope Valley, leaving tools and other evidence as to their activities and diet. Rock art remains in a few locations that only hints of the ceremonial and religious life of the people.

About 1,000 years ago—perhaps earlier—the culture of the inhabitants changed dramatically as groups from the Northwest swept southward, bringing greater communal living and more effective hunting implements and skills. These cultures are what we today call the Great Basin people, and are the groups that the Spanish first encountered when they began to explore the Antelope Valley beginning about 400 years ago.



Serrano Indian at Fort Tejon
Source: Santa Clarita Historical Society

By then, however, the Valley’s population had begun to decline, probably due to the increasingly arid climate. Serrano, Kitanemuk, Tataviam, Kawaiisu and Chumash peoples existed in small groups, with extensive trading occurring among the groups.

About 200 years ago the Spanish began to “resettle” many of the village populations to the San Fernando Mission. Forced labor and disease spread by contact within the Mission both took their toll on the native peoples and their cultures. In 1848 California was acquired from Mexico by the United States. Eventually the struggling Native American groups that had been subject to reservation and relocation activities faded into the European culture growing up around them.

¹ Antelope Valley Indian Museum—County of Los Angeles Public Library on-line reference, <http://www.colapublib.org/history/antelopevalley/faq.html>

LAND BOOM OF THE 1880'S

The historic development of the Antelope Valley started in 1876 with the completion of the Southern Pacific Railroad line from San Francisco to Los Angeles via the Antelope Valley. Many colonies began to develop, including Lancaster, Palmdale, Rio del Llano and Littlerock, all dependent upon stock raising, dry farming and fruit orchards. Unfortunately the Antelope Valley was hit in the 1890's by unprecedented drought; less than half of the planted acreage was still irrigated by 1910.

Several factors contributed to new water resources for the Antelope Valley, including the introduction of electricity in 1917 which allowed the construction of deep wells with good water. The Los Angeles Aqueduct provided not only water but construction opportunities for thousands in 1912 and 1913. Then in 1919 a bond issue was passed for the construction of Littlerock Dam, largely for the supply of irrigation water.

POST WAR POPULATION BOOM

The World War II years brought the development of Edwards Air Force Base (initially Muroc Air Base) and a doubling of Antelope Valley population. In 1947, after taking off from the base, Captain Chuck Yeager broke the sound barrier in a Bell XI aircraft while flying over Antelope Valley. Military defense work expanded in the 1950's, and Palmdale Airport (U.S. Air Force Plant 42) emerged as a national center for jet testing. The later part of the decade saw the start of an economic downturn throughout the country that slowed military investments in Antelope Valley projects.



Muroc Air Base
Source: U.S. Air Force

The final decades of the 20th century saw the Antelope Valley emerge with major new housing opportunities as vast acreages were subdivided for affordable tract homes. Palmdale and Lancaster incorporated as independent cities, and rural communities continued to grow. Farming regained status as a productive employer, but the area continued to develop without balancing the growth in housing with a corresponding growth in jobs. Today, many who live there commute to jobs in other parts of the Los Angeles Basin. New commercial centers and cultural developments are beginning to round out the shopping, entertainment and employment needs of Antelope Valley residents. Expansion of urbanization will write the next chapter in Antelope Valley history.

CHAPTER 2

GOVERNANCE & JURISDICTIONAL RESPONSIBILITIES

Governance is the process of decision-making and the process by which decisions are implemented. Planning decisions in the Antelope Valley are made by various levels of government and local citizen groups. This chapter discusses the governmental and private entities that have a role in shaping the future growth of the Antelope Valley. While acknowledging the regulatory powers of the Federal and California State governmental agencies, here the focus is on local authority.

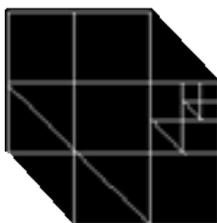
LOS ANGELES COUNTY BOARD OF SUPERVISORS



The Board of Supervisors is the governing body of Los Angeles County with the unique function of serving as the executive and legislative head of the largest and most complex County government in the entire United States. Los Angeles County is divided into five supervisorial districts, each being nearly equal in population. One of the five supervisorial districts—the Fifth—covers the Antelope and Santa Clarita Valleys. One Supervisor for each district is elected to serve on the Board of Supervisors for a four-year term; any vacancies occurring mid-term are filled by the Governor. A Chairman of the Board is elected by the other Board members and serves a one-year term beginning in December. Much of the Board’s authority is limited to the unincorporated portions of the County. Palmdale and Lancaster are the only two cities in the Antelope Valley.

The Board of Supervisors adopts an annual budget and makes policy decisions for the administration of County departments. In addition, the Board conducts public hearings on zoning, real property transactions, and other proceedings that require that the public be given an opportunity to have input. The Board also adopts local regulations affecting the unincorporated areas of the County. The Board holds public hearings for planning matters every 4th Tuesday of the month.

LOS ANGELES COUNTY REGIONAL PLANNING COMMISSION



The Regional Planning Commission (RPC) was established by the Los Angeles County Board of Supervisors in 1922. It is the oldest official planning body in the United States. The RPC consists of five Commissioners who are appointed to four-year terms by the Board of Supervisors. In addition, there are four advisory, non-voting, members

consisting of the Forester and Fire Warden, Director of Public Works, Superintendent of Parks and Recreation, and Agricultural Commissioner.

The RPC acts as an advisory body to the Board of Supervisors on all planning matters, and administers the provisions of the State Planning Law (Title 7, Division I, of the Government Code), the State Subdivision Map Act, California Environmental Quality Act (CEQA), and the Los Angeles County ordinances affecting planning such as the County Zoning Ordinance and Subdivision Ordinance. It reviews planning policies and conducts regular public hearings each Wednesday. Tentative subdivision tracts, zoning changes, variances and permits, countywide and community plan policies are presented to and acted upon by the RPC.

TOWN COUNCILS

The Town Council movement in Southern California began in the late 1980's as rapid expansion of urban housing in Los Angeles County began to encroach upon the rural lifestyle of established unincorporated communities in the Antelope Valley. Land use and growth plans for these rural communities were traditionally controlled by State, County, and neighboring municipal governments, which left these rural communities without an effective way to participate in their future. It became evident that an organized, recognized voice was needed to provide community representation in plan preparation.

Town Councils in the Antelope Valley are locally elected citizen groups, formed as grassroots efforts to empower unincorporated communities with local influence in matters that affect their communities. They often provide recognized input to the Board of Supervisors on local planning issues. The scope of their involvement in local politics is often reactionary in nature, responding to specific development proposals or raising concerns on issues that otherwise might not be addressed by outside municipalities and other levels of government. In addition, many have become pro-active by helping to draft local zoning regulations and standards.

CITY OF PALMDALE



Palmdale is the first community within the Antelope Valley, incorporating as a city in 1962. Its geographic size increased from 2.1 square miles in 1962 to 104 square miles in 2008, and its population soared tenfold from 12,227 residents in 1980 to about 147,000 people in 2008, making it one of America's fastest-growing cities. It is a general law city governed under the City Council/City Manager form of local government. The Mayor is elected every two years for a two-year term. Also every two years, two of the four Council Members are elected to serve four-year terms. Palmdale has term limits for Council and Mayor.

The City's appointed Planning Commission is comprised of four district commissioners and one at-large commissioner. The Planning Commission approves or makes recommendations on development proposals and environmental findings for land development projects, makes recommendations on maintaining land use regulations through general plan amendments, zone changes and zoning code amendments, determines consistency of the Capital Improvement Program with the General Plan, and makes recommendations to the City Council on land use and environmental policies and programs. The Planning Commission meets on the first and third Thursday of every month.

CITY OF LANCASTER



Lancaster is the second largest urban center in the Antelope Valley. The person credited with formally developing the town is Moses Langley Wicks, who in 1884 bought property from the railroad for \$2.50 per acre, mapped out a town with streets and lots, and by September was advertising 160-acre tracts of land for \$6 an acre. Both John Wayne and Judy Garland lived in the area when they were children.

Until it was incorporated in 1977, the area was under the political influence of Los Angeles County. It is operated on a City Council/City Manager system of government that consists of an elected Mayor and four elected Council Members. As the City's legislative and policy entity, the Mayor and Council Members are responsible to the residents of Lancaster for all municipal programs and services as well as for any legislative matters concerning the City. The City Council approves and adopts ordinances, resolutions and contracts, and enacts regulations and policies.

The City's Planning Commission consists of five members that are appointed by the City Council. Under the provisions of the City's Municipal Code, the Planning Commission is responsible for making decisions on land use applications including conditional use permits and tentative tract/parcel maps. The Planning Commission also reviews and makes recommendations to the City Council on general plan amendments, zone changes and zoning code amendments. Decisions rendered by the Planning Commission are appealable to the City Council. The Planning Commission holds public hearings on the third Monday of each month.

UNINCORPORATED COMMUNITY IDENTIFICATION

The Plan and its update—Town & Country—recognize the many and varied communities that make up the Planning Area. While much of the Antelope Valley is composed of vacant land or land under cultivation, in addition to the urbanized cities of Palmdale and Lancaster, there are many smaller, predominantly rural communities throughout the Valley:

Acton

Acton is a 4.6 square mile Census-designated place located in the rugged Sierra Pelona Mountains. It is roughly 20 miles northeast of the San Fernando Valley, and 47 miles north of downtown Los Angeles. According to the 2000 U.S. Census, Acton had a population of 2,390 and a population density of 520 persons per square mile¹.

Acton was founded in 1887 by gold miners who were working in the Red Rover Mine. It was named after Acton, Massachusetts. Henry T. Gage, owner of the mine, was governor of the state from 1899 to 1903. At this time, he attempted to relocate the State capitol to Acton. The community of Acton has a rural western theme which can be seen in its homes, commercial buildings, and historical buildings.

Antelope Acres

Antelope Acres is a rural community centered around the intersection of Avenue E-8 and 90th Street West in the northern part of the Antelope Valley. It is located 64 miles from downtown Los Angeles. The lifestyles of persons living in Antelope Acres tend to be rural; many residents own and ride horses. The topography is predominantly flat with an elevation of 2,424 feet above sea level.

Crystallaire

The rural community of Crystallaire is located at the foot of the San Gabriel Mountains between Llano and Valyermo east of Valyermo Road. Past subdivision activity has resulted in about 400 half-acre and one acre lots. Development is centered around the Crystallaire Country Club. Northeast of the community core is a small airport, often used by glider planes taking advantage of the uplifting winds from the nearby mountains. Sporadic residential development has occurred, predominantly on acre lots in the northern part of the community.

El Dorado

El Dorado is located on both sides of the Antelope Valley Freeway between Avenues N and O. The Land Use designation of El Dorado is “Non-urban 1” which limits development to a maximum density of one dwelling unit per two acres in recognition of the existing development pattern. Portions of the area are under the flight pattern for aircraft departing from USAF Plant 42 and are subject to high noise levels.

¹ Census boundaries do not align with community boundaries as designated by the Los Angeles County Department of Regional Planning and thus the population figures here may be different from those presented in Chapter 4.

Green Valley

The community of Green Valley is a secluded National Forest inholding located along San Francisquito Canyon Road, approximately two miles south of Elizabeth Lake Road. Most subdivision activity in the community took place in the 1920's, resulting in the creation of about 1,800 five-thousand square-foot lots.

Gorman

Gorman is a small community of approximately 60 acres located in the far northwestern corner of Los Angeles County where the Sierra Pelonas, Tehachapis, and the San Emigdios mountain ranges meet. Interstate 5 runs past Gorman to the west and State Route 138 connects to Interstate 5 a few miles south of the community. While few people live in Gorman on a full-time basis, the community provides necessary services to the motoring public along Interstate 5.

Juniper Hills

Juniper Hills is located in the foothills on the northern slope of the San Gabriel Mountains, south of Littlerock and Pearblossom. It adjoins the Devil's Punchbowl, a County park.

Lake Hughes-Elizabeth Lake

Lake Hughes and Elizabeth Lake are two neighboring but related communities located in the narrow rift valley separating Portal Ridge and the San Gabriel Mountains in the western portion of Antelope Valley. The San Andreas Fault Zone traverses the area and is responsible for the formation of the valley and the two lakes from which the communities are named. Subdivision activity, extending from the 1920's to early 1960's, has resulted in the existence of many hundreds of parcels ranging in size from 3,000 square feet to 7,500 square feet.

Lake Los Angeles

Lake Los Angeles is a Census-designated place located 17 miles east of the Palmdale Civic Center. It has a population of 11,523 people, 3,137 households, and 2,613 families as of the 2000 U.S. Census². Elevation is 2,664 feet above sea level.

The community was formed after land developers bought 4,000 acres in the region, subdivided it into 4,465 lots in the late 1960's and built a man-made lake, renaming it Lake Los Angeles. Today the lake is mostly dry, having been allowed to evaporate.

² Census boundaries do not align with community boundaries as designated by the Los Angeles County Department of Regional Planning and thus the population figures here may be different from those presented in Chapter 4.

Leona Valley

Leona Valley is located 10 miles west of the Palmdale Civic Center. Elizabeth Lake Road runs through the center of the community. Its environmental setting differs from the desert landscapes of the surrounding Antelope Valley communities, with rolling hills dominating its landscape.

Littlerock

Littlerock is a Census-designated place 11 miles southeast of the Palmdale Civic Center, founded in 1893. As of the 2000 U.S. Census, it had 1,402 people, 426 households, and 331 families residing in an area of 1.4 square miles³.

Nearby Littlerock Dam—now considered a historical architectural structure—was completed in 1924 to provide water to irrigate the town's orchards and today also provides recreational amenities such as boating, fishing, and camping.

Llano

On May 1, 1914, the Llano del Rio Colony, a socialist utopian community, was established about 25 miles southeast of Palmdale in the eastern part of the Antelope Valley. The cooperative thrived for several years—its population exceeding 1,000 people in 1916—until its long-term water supply was diverted by an earthquake fault. The town of Pearblossom lies to the West, while the town of Pinon Hills lies to the east, with its principle street, State Route 138, running through the heart of Llano.

Pearblossom

Pearblossom is the most easterly of the major Antelope Valley communities located along Pearblossom Highway, the primary east-west highway through the eastern portion of the Antelope Valley. It is approximately 15 miles southeast of Palmdale and has a population of 2,435. A business area along Pearblossom Highway serves both highway-oriented and locally serving commercial needs. Subdivision activity has resulted in both half-acre and one acre lots south of Pearblossom Highway.

The name Pearblossom came from the multitude of local pear farms along the southern ridge of the Antelope Valley, though few exist today. Most of those farms are now abandoned and have been replaced with small-scale housing developments.

³ Census boundaries do not align with community boundaries as designated by the Los Angeles County Department of Regional Planning and thus the population figures here may be different from those presented in Chapter 4.

Quartz Hill

Quartz Hill is the largest of the unincorporated communities in the Antelope Valley. It is a Census-designated place with a population of approximately 9,890 residents and 3,450 households as of the 2000 U.S. Census⁴. It is an area of 3.7 square miles with a population density of nearly 2,700 persons per square mile. The community is bounded by the City of Lancaster with the commercial center along 50th Street West serving as its core.

Sun Village

The community of Sun Village is located north of Littlerock in the eastern portion of the Antelope Valley. The central business area of Sun Village is considered to be Palmdale Boulevard and 90th Street East. Historically, Sun Village has been linked to the community of Littlerock. The Sun Village and Littlerock Town Councils submitted a joint Southeast Antelope Valley Community Standards District that regulates development standards for both of these communities. The Los Angeles County Board of Supervisors adopted this Community Standards District in 2007.

Westside Park

Westside Park is located along both sides of the Antelope Valley Freeway between Avenue O and Avenue O-12 just to the south of the community of El Dorado. It is an area which has been developed to predominantly 2½ acre home sites. Horses and other ranch animals play an important role in the community lifestyle.

White Fence Farms

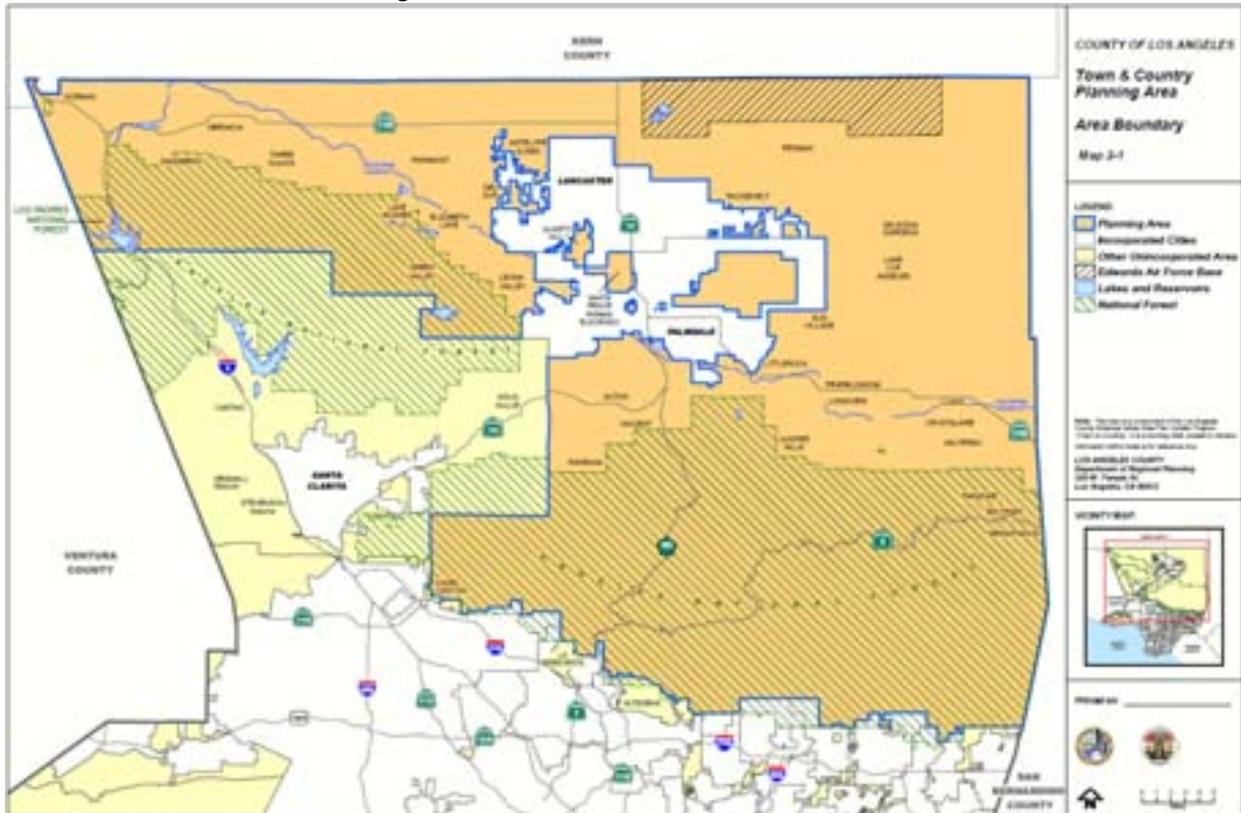
Situated just west of the Antelope Valley Freeway near the southern boundary of Palmdale is the community of White Fence Farms. Growth in the Antelope Valley has raised concerns from its residents and property owners, leading the community to voice strong support for maintaining the rural character of the area. Of greatest concern to the community are the questions of parcel size and density, and future service systems. Most residents and landowners support maintaining the current subdivision pattern, which is predominantly composed of 2 to 3 acre parcels.

⁴ Census boundaries do not align with community boundaries as designated by the Los Angeles County Department of Regional Planning and thus the population figures here may be different from those presented in Chapter 4.

Wrightwood

Wrightwood is located in a long narrow rift valley formed by the San Andreas Fault Zone in the southeastern Antelope Valley. While the major portion of the Wrightwood community is located within San Bernardino County, a small largely undeveloped area extends into Los Angeles County.

MAP 2-1: TOWN & COUNTRY Planning Area

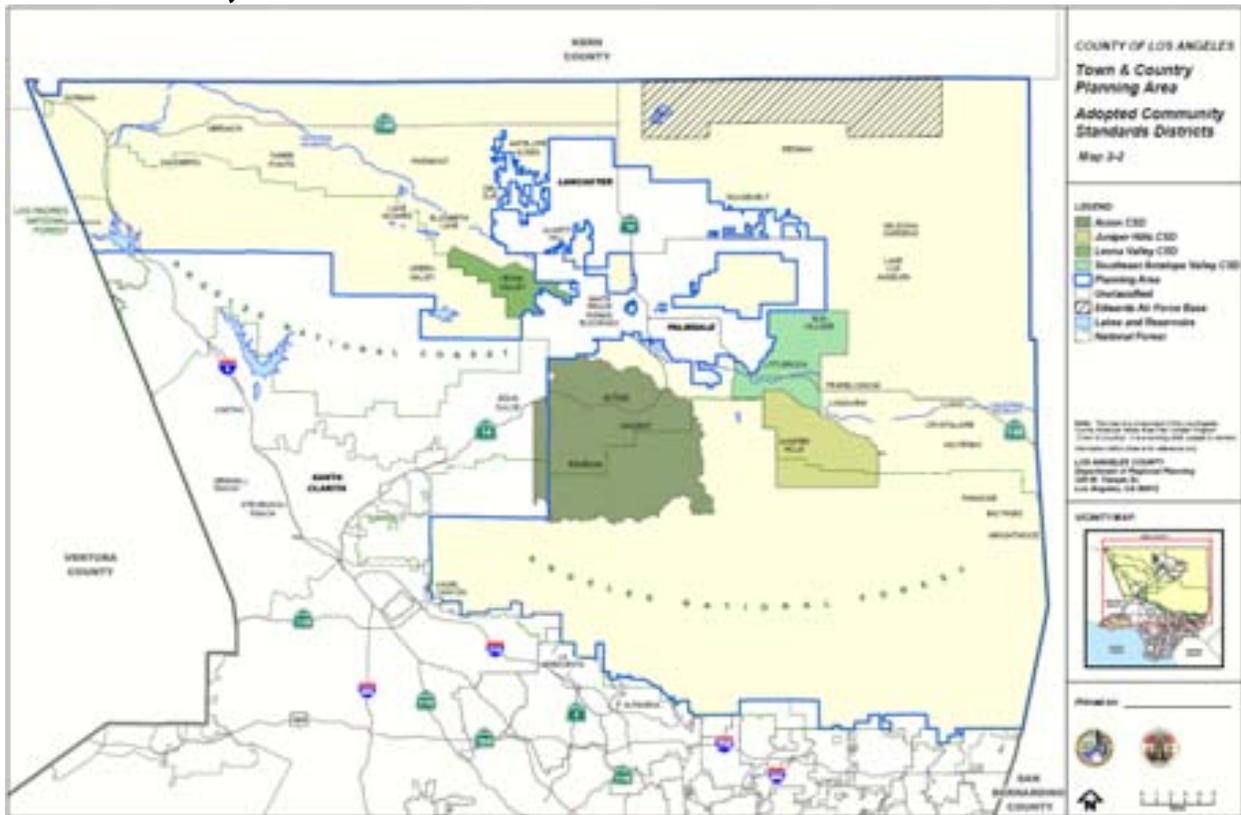


COMMUNITY STANDARDS DISTRICTS

A Community Standards District (CSD) is a zoning tool used to address special problems unique to a defined geographic area. It addresses the issues by developing a set of community specific guidelines used to evaluate development as projects are proposed on a case by case basis. While it may provide a solution to one parcel at a time, it does not create a long term vision or plan to guide growth and preservation within the community in a comprehensive manner. Additionally, the effects of neighboring communities are not surveyed within the CSD. Such macro level efforts are more appropriately developed through community and area plans such as this Updated Plan.

Within the Planning Area four such CSD’s exist—for the communities of Leona Valley (adopted 1993), Acton (1995), Juniper Hills (2007) and Southeast Antelope Valley—covering the communities of Sun Village and Littlerock (2007). A CSD for the communities of Elizabeth Lake and Lake Hughes will be adopted in 2009. While each CSD reflects the needs and desires of community residents, a universal focus is the retention of the rural character and lifestyle that has developed in each community. They were proposed by each Town Council and have raised awareness with local agencies of the importance of sensitive decision making when designing and installing community features such as street improvements and street lighting.

MAP 2-2: Community Standards Districts

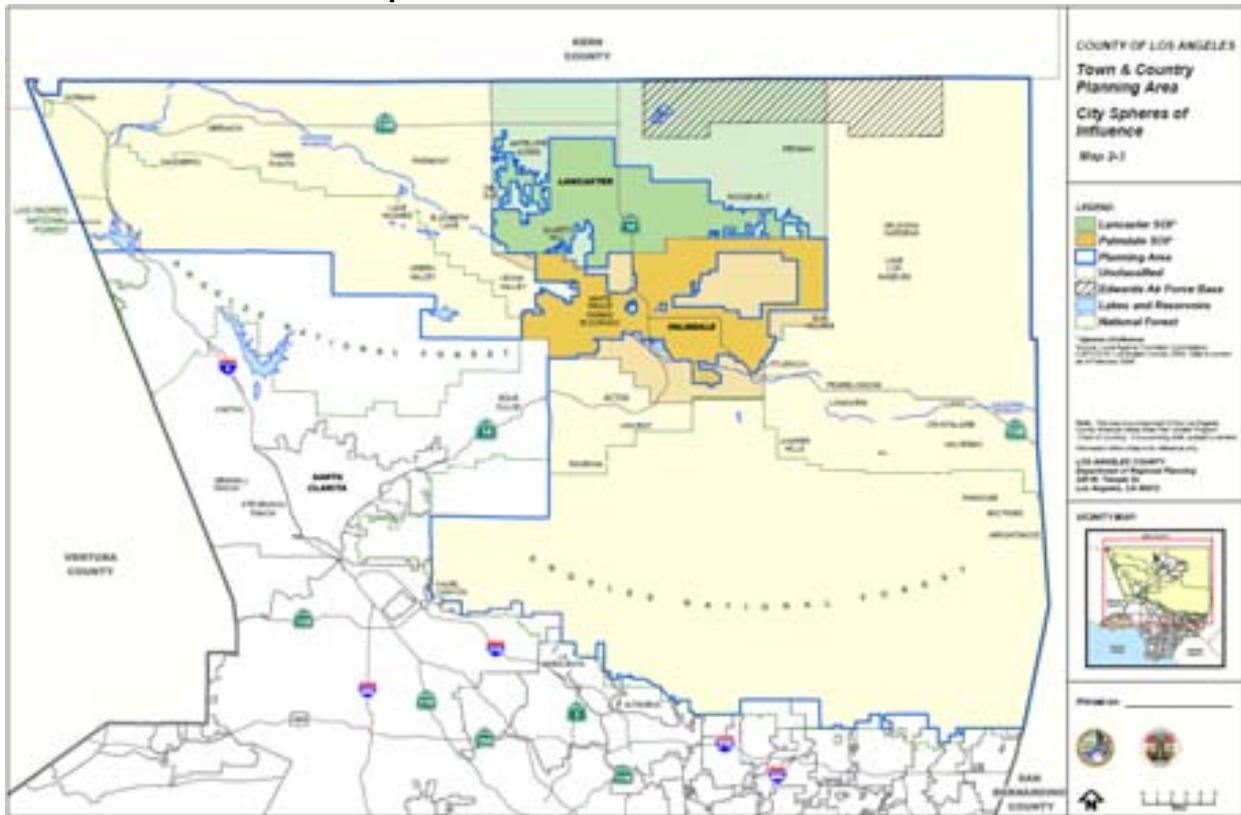


SPHERES OF INFLUENCE

State law allows cities to establish defined areas beyond their municipal boundaries, known as “spheres of influence,” which they are able to provide recognized input on discretionary land use actions. Both the Cities of Lancaster and Palmdale have applied to the Local Agency Formation Commission (LAFCO) and received approval for sphere areas currently under Los Angeles County jurisdiction. Only lands within these sphere areas can possibly become the subject of annexation applications.

LAFCO is charged with developing and updating spheres of influence for each city within its respective County. Spheres are planning tools for individual proposals involving jurisdictional changes, and are intended to encourage efficient provision of organized community services and prevent duplication of service delivery. During exchanges of governance, LAFCO coordinates the logical and timely changes in local government boundaries.

MAP 2-3: Palmdale and Lancaster Spheres of Influence



CHAPTER 3

PHYSICAL SETTING & ENVIRONMENTAL RESOURCES

While having changed significantly over eras of time, today the Antelope Valley and environs are rich in geologic landforms and biotic communities. This Chapter forms the physical setting and the environmental framework of the Antelope Valley, beginning with geology—including mineral components and soils types—and then adding the flora and fauna biological makeup and climate characteristics of the area. These features contribute to the diverse scenic resources of the region.

GEOLOGY

The Antelope Valley is a high plain located on the southwest edge of the Mojave Desert, a vast expanse of the United States known as the Great Basin. The Mojave Desert covers much of southern California, southern Nevada (including Death Valley), western Arizona, and a small portion of Utah. Transverse mountain ranges and intervening land forms comprise a significant portion of the Planning Area, but its predominant land feature is the flat desert portion referred to as the “High Desert”, with elevations between 2,300 and 2,400 feet above sea level. Much of the mountain ranges are rugged and steep. Mount Baldy (San Antonio Peak) at the eastern boundary of Los Angeles County reaches an elevation of 10,080 feet.



Sierra Pelona Mountains
Source: Pictometry International Corp

The desert portion, typified by the presence of Joshua trees, is surrounded by the San Gabriel Mountains on the south, the Liebre and Sierra Pelona Mountains across the southwest (separating Antelope Valley from the Santa Clarita Valley), the Tehachapi Mountains to the northwest and San Bernardino County to the east. A major seismic rift zone, the San Andreas, runs diagonally through the Antelope Valley, from the northwest to the southeast. Numerous sag ponds have formed along this zone, many of which provide recreation sites. The largest of these, Elizabeth Lake, is about two miles long. Another significant fault, the Garlock, runs from a junction with the San Andreas Fault in the vicinity of Gorman, northeastward to a junction with the Death Valley Fault Zone.

The Antelope Valley offers many geological features including mountain ranges, alluvial fans, buttes, washes, reservoirs, springs, lakes, and rivers. Because of the unique characteristics of geology within the Antelope Valley, a diversity of animal and plant habitats extend throughout. The following is an inventory of geologic features:

Mountains:	San Gabriel Mountains, which include the Angeles National Forest, Tehachapi Foothills, and Desert-Montane Transect
Buttes:	Fairmont and Antelope Buttes, Saddleback Butte, Alpine Butte, Lovejoy Butte, and Piute Butte
Ridges:	Ritter Ridge and Portal Ridge/Liebre Mountain
Lakes:	Elizabeth Lake, Lake Hughes, Pyramid Lake, Rosamond Lake, and Quail Lake
Reservoirs:	Lake Palmdale, Littlerock, Bouquet, and Fairmont
Washes:	Big Rock Wash and Little Rock Wash
Rivers:	Santa Clara River and the California Aqueduct
Springs:	Kentucky Springs

The bases of the mountain ranges and much of the desert floor are composed of alluvial deposits—the material laid down by rivers. These alluvial deposits are made up of faulted bedrock and shape the groundwater flow, leading to the creation of numerous dry lakes. Small hills known as buttes are also created through faulted bedrock and are seen throughout the Antelope Valley floor.



Alluvial fan

Source: Pictometry International Corp

The rocks of this region are predominantly granite and marble. There are also marine and non-marine sedimentary, volcanic, and metamorphic rocks. The Antelope Valley floor also has alluvial deposits of sand, angular boulders, cobbles, and gravels, with silt and clay.

The Antelope Valley and Angeles National Forest areas of this region are made up of many different soil types. The soil survey used for this Planning Area is from the United States Department of Agriculture (USDA), Natural Resources Conservation Service. Most of the soils in this region contain loam. Loam is soil composed of sand, silt, and clay in about 40-40-20% concentration, respectively, and is known as the "garden soil", ideal for crop production. Loam generally contains more nutrients than sandy soils.

The moderately permeable areas in the Antelope Valley have soils that include:

- Sandy loam
- Rock loam
- Coarse sandy loam
- Gravelly sandy loam
- Rocky sandy loam
- Loamy fine sand
- Sandy alluvial land
- Rock loam
- Rocky coarse loam
- Stony loam
- Shaly loam
- Silty clay loam
- Clay loam

MINERALS

Mineral resources are minerals or aggregate deposits, such as sand, gravel and other construction aggregate. These resources—found largely in the washes along the southerly foothills—are extremely important to Los Angeles County’s economy. The sand and gravel extracted from these areas are used to build the structures and connecting infrastructure within our County. The Los Angeles area produces and consumes more construction aggregate than any other location of similar size in the United States.

Mineral Land Classification

Under the Surface Mining and Reclamation Act of 1975 (SMARA), the State of California’s Geological Survey (CGS) identifies deposits of regionally significant aggregate resources to protect such resources in areas subject to urban expansion or other irreversible land use changes that would preclude mineral extraction. Government agencies use this information in their land use plans to protect a 50-year supply of aggregate.

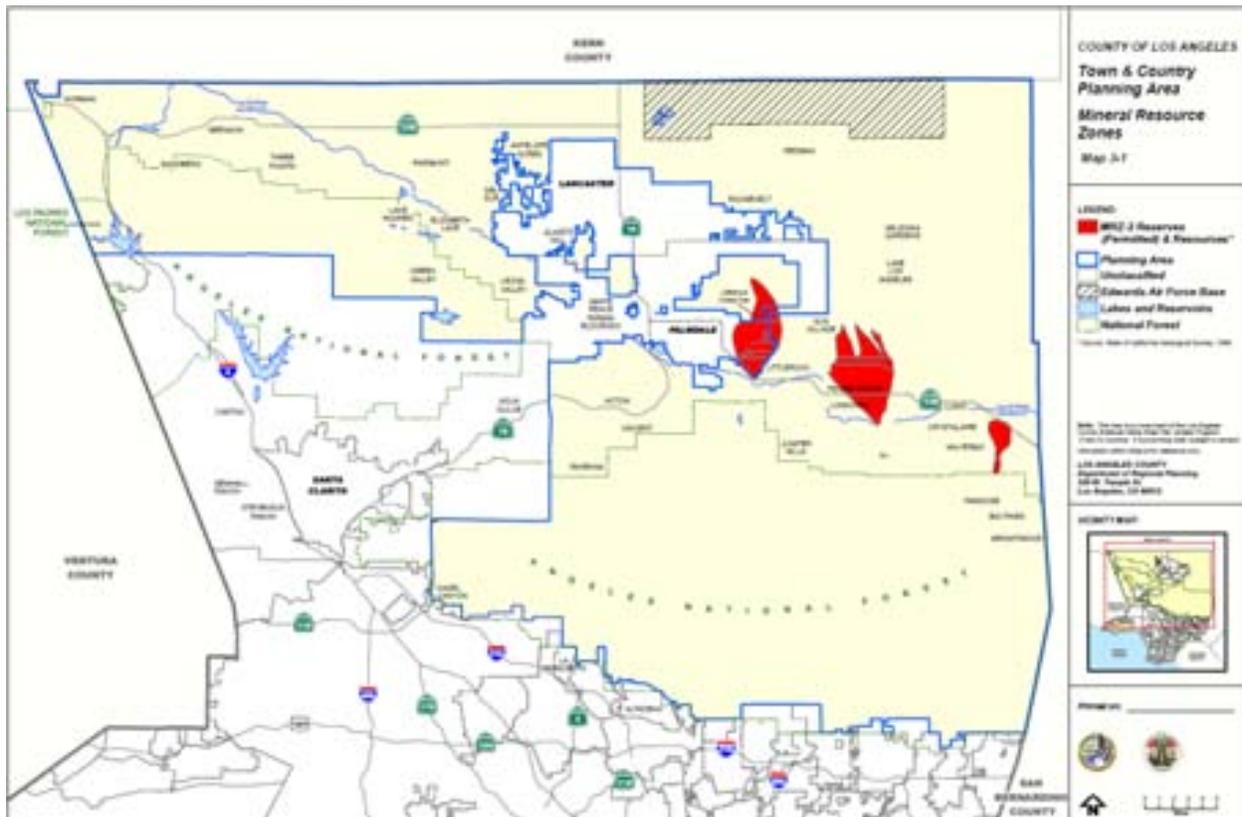
Classification studies involve geologic mapping, review of historic and existing records, subsurface data, aggregate test data, and identification of Mineral Resource Zones (MRZs), without regard to ownership or use. MRZs are reviewed every 10 years following the census to determine if new classifications are necessary.

MRZs contain four classifications:¹

- MRZ-1 [No resource]: No significant mineral deposits are present
- MRZ-2 [Reserves (permitted) and Resources]: Existence of a deposit that meets certain criteria for value and marketability
- MRZ-3 [Suspended resource]: Potential but presently unproven resources
- MRZ-4 [Unknown]: Areas of unknown mineral resource potential

The following Mineral Resource Zones map delineates the primary mineral resource areas.

MAP 3-1: Mineral Resource Zones



Mineral Resource Supply

Permitted aggregate resources are aggregate deposits that have been determined to be acceptable for commercial use, exist within properties owned or leased by aggregate producing companies, and have permits allowing mining of aggregate material.

¹ California Department of Conservation, State Mining and Geology Board, *California Surface Mining and Reclamation Policies and Procedures, Guidelines for Classification and Designation of Mineral Lands*, 2000.

The Planning Area contains the Palmdale Production-Consumption (P-C) region. This P-C region includes one or more aggregate production districts (group of mines) and the market that those districts serve. A projected 50-year (years 2006-2055) forecast of aggregate demand for this P-C region indicates that there will be a total demand of 665 million tons with only 181 million tons or 27% supply through permitted aggregate resources.²

Between 2001 and 2006 the tonnage of permitted aggregate resources reduced from 216 million tons to 181 million tons, while the demand increased from 172 million tons to 665 million tons.³ This major increase in demand can be partly attributed to the nearly depleted resources at the Saugus Newhall site, causing regional demand levels to be shifted to nearby production sites. Reserves are currently being hauled as far as 60 miles into western Ventura County.

A population growth model was used to predict the 50 year aggregate demand. Permitted aggregate resources in the P-C market may not supply the demand it serves because the rate of population growth outpaces the rate of permitted mining. Of the state's classified mapped mining resources, only 6% has been permitted for mining by local agencies. Depletion of local resources requires that aggregate be hauled longer distances from other P-C regions to serve local demand.

Important facts about aggregate resources in California:⁴

- Construction aggregate is the cheapest commodity produced per unit volume yet the highest overall value commodity mined in California. In 2005, 255.3 million tons were produced with a dollar value of \$1.63 billion (44% of the value) of California's total 2005 non-fuel mineral production.
- In 2005, the annual per capita consumption of aggregate was 7.1 tons per person.
- Approximately 43% of construction aggregate is used in public works projects such public highways, streets, and schools.
- It takes as much as 200,000 tons of aggregate to build one mile of an 8-lane highway.

BIOLOGICAL RESOURCES

Although the antelope that once roamed wild through the Antelope Valley are gone, today hillsides and fields ablaze with the glow of golden California poppies are a treasured resource in this portion of the Mojave Desert. Springtime—following a winter of just the right amounts of rain at just the right times—creates this splendor, enjoyed by the thousands that come to the Antelope Valley each year just to witness this gift of nature. Adding to such an adventure are the acres of Joshua trees nearby that characterize this portion of the desert. The Antelope

² California Department of Conservation, California Geological Survey, *Aggregate Availability in California*, 2006.

³ California Department of Conservation, California Geological Survey, *Aggregate Availability in California*, 2006.

⁴ John G. Parrish, Ph.D, California Department of Conservation, *Aggregate Supply and Demand – The Evolving Picture* (presentation), 2007.

Valley's diverse environs include arid desert communities, foothill woodland communities, high elevation pinon and chaparral communities, as well as desert and mountain riparian communities. Identifying and protecting these and other rich biological resources is extremely important to Los Angeles County residents.

Vegetation

Due to the location and large variation in elevation and topography, the Planning Area is high in floral and faunal diversity. Such diverse vegetation include foothill woodland communities, high elevation pinon and chaparral communities, montane riparian communities, playa lake, alkali marsh, alluvial fan scrub, a mosaic of xeric desert scrubs, Joshua tree woodland, desert riparian woodlands, juniper scrub, pinyon pine, chaparral and higher elevation mixed conifer, oak and riparian communities.

Wildlife

The Antelope Valley's extensive acreage of natural open space and variety of habitat types hosts a diverse and abundant wildlife population, a large number of invertebrate species and more than 1,000 terrestrial species.

Wetland and aquatic habitats support diverse freshwater and alkaline pool arthropods, including native fairy shrimp, brine flies, and tiger beetles.



Source: William Boarman, U.S. DOT FHA

Amphibians are not generally present within desert habitats, except where water persists throughout the year or breeding season; a limited number of species may be abundant in desert riparian areas. The moister woodland areas and canyon bottoms of the mountains support abundant populations of more common amphibians, and in Little Rock Creek, the southwestern arroyo toad. Several species of salamander may also be present within the mesic upper reaches of the creek drainages.

Open desert scrub habitats generally support diverse reptile populations that include numerous lizard and snake species, along with the southwestern pond turtle and California desert tortoise. Many essential reptilian habitat characteristics are present, such as open habitats that allow free movement and small burrows for cover and escape from predators.

Bird diversity is related to habitat opportunities for year-round birds, seasonal birds, and migrating raptors and song birds. The most productive sites for birds are the riparian corridors and freshwater systems, which attract large numbers of migrating birds during spring and fall,

and provide abundant cover and food resources for songbirds. The desert riparian woodlands and rocky buttes provide nest sites for raptors, many of which forage widely over desert scrub and agricultural lands. The lakes and seasonal pools, along with the ponds near the dry lakes, attract large numbers of migrating water birds and provide important winter foraging and sheltering areas for waterfowl and birds of prey.

Sensitive Biological Resources

Sensitive biological resources are habitats or individual species that are designated by federal, state, or local conservation agencies and organizations as endangered, threatened, or rare. This is due to the species' declining or limited population sizes, usually resulting from habitat loss. Watch lists of such resources are maintained by the California Department of Fish and Game (CDFG), the United States Fish and Wildlife Service (USFWS), and special groups such as the California Native Plant Society (CNPS).

Several habitat types are considered sensitive because of their scarcity and support of a number of state and federally listed endangered or threatened species. These habitats include Joshua tree woodland, southern cottonwood-willow riparian forest, fresh-water marsh, alkali marsh, alluvial fan sage scrub, mesquite bosque, valley oak woodland, native grassland, and southern willow scrub. These habitats are considered highest-inventory priority communities by the CDFG, indicating that they are declining in acreage throughout their range due to land use changes.



Joshua tree woodland

The Planning Area contains over 30 vascular plant, 2 invertebrate, and over 50 vertebrate sensitive species that include the California desert tortoise, Mohave ground squirrel, southwestern arroyo toad, California condor, Tehachapi slender salamander, and burrowing owl.

SIGNIFICANT ECOLOGICAL AREAS

Los Angeles County adopted the 1976 Significant Ecological Areas (SEA) study prepared by environmental consultants England and Nelson.⁵ When this study was prepared, the consultant identified animal and plant habitats using an “island” theory, meaning that all of the core habitats are located within designated confined geographical areas. In 2000, the Significant

⁵ PCR Services Corporation, *Los Angeles County Proposed Significant Ecological Areas Study*, November 2000.

Ecological Areas study was updated with a new biological analysis using a “corridor” approach.⁶ This method identified the core “island” habitats as well as interlinking corridors that animal or plant life may travel. Considering that animals migrate and the seeds of plants spread, this approach was appropriate. The revised Significant Ecological Area designations proposed pursuant to the new biological analysis are larger than those currently adopted.

There are several important factors to the SEA program:

- SEAs may reflect biotic resources unique to the general area, or are an exemplary example of a particular type of biotic community.
- SEAs are not “preserves.” However, to conserve important biological resources, land-intensive development in SEAs must undergo an additional level of environmental review.
- A majority of SEAs encompass existing public open space, floodplains, and steep hillsides.
- Los Angeles County’s SEA regulations do not apply to areas within city boundaries (although many cities acknowledge these resources and apply their own regulations).
- There are many exemptions to the SEA program, including existing development and a new house proposed by an individual owner.
- Development that does occur within an SEA should be designed in a manner that is consistent with the overall intent of the SEA program and balances the conservation of important natural resources with the proposed project.

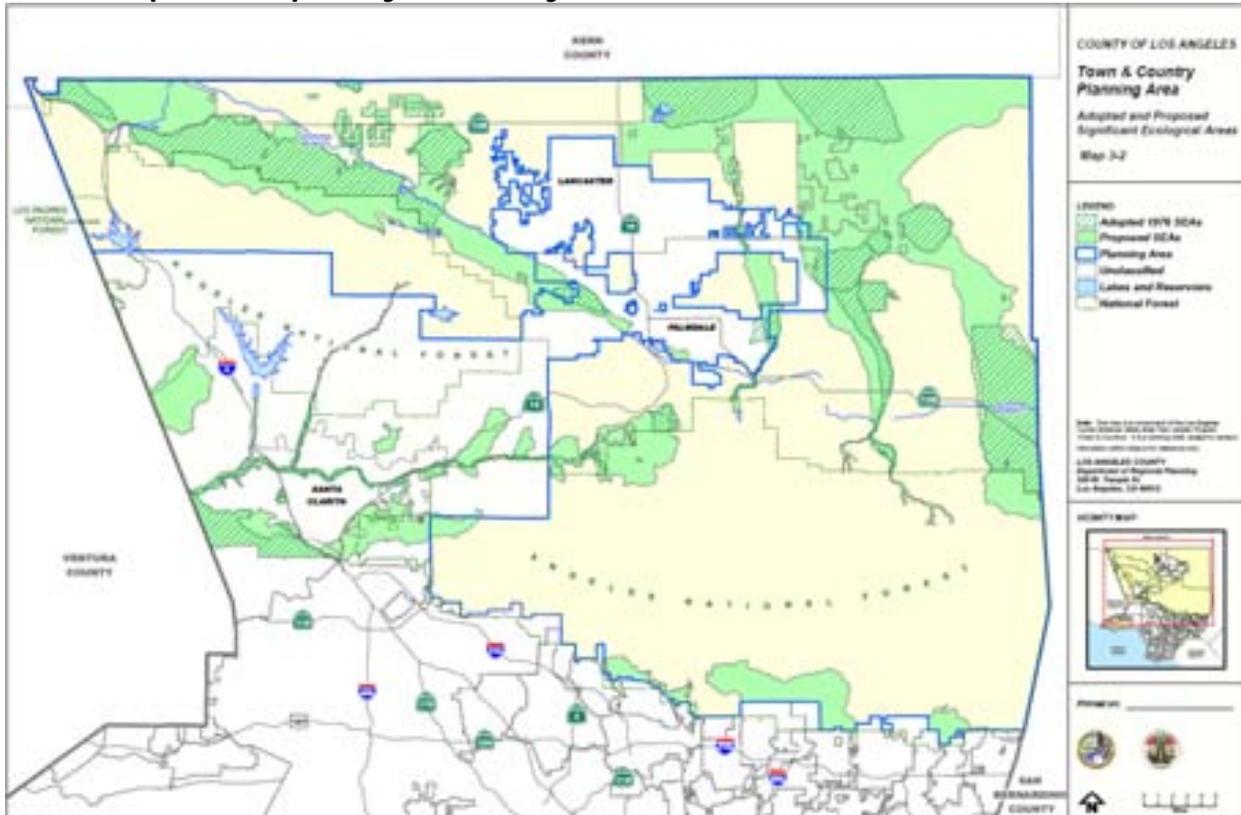
There are four SEAs identified in the Antelope Valley based on the 2000 SEA study. These SEAs are the Antelope Valley, San Andreas Rift Zone, Joshua Tree Woodland, and Santa Clara River.



Mountains in San Andreas Rift Zone

⁶ PCR Services Corporation, *Los Angeles County Proposed Significant Ecological Areas Study*, November 2000.

MAP 3-2: Adopted and Proposed Significant Ecological Areas



Antelope Valley Significant Ecological Area

The Antelope Valley Significant Ecological Area (SEA) is located within the central portion of the Antelope Valley, primarily east of the cities of Palmdale and Lancaster, predominantly within unincorporated Los Angeles County. The area includes the tributary creeks to Little Rock and Big Rock Creeks (partially within U.S. Forest Service land) downstream to the valley floor and northward across the historic floodplain zones to Rosamond, Buckhorn, and Rogers dry lakes on the Los Angeles/Kern County boundary. Delineation of the SEA boundary considered the importance of the Little Rock and Big Rock Creek watershed to the surface and subsurface hydrology of the Antelope Valley and interrelated dry lakes and wetland systems.

San Andreas Rift Zone Significant Ecological Area

The San Andreas Rift Zone Significant Ecological Area (SEA) is located in the western portion of the Antelope Valley. The area includes a small portion of the western Tehachapi foothills and then stretches in a southeasterly direction to include Quail Lake, the northern foothills of Liebre Mountain and Sawmill Mountain, large portions of Portal Ridge, Leona Valley, Ritter Ridge, Fairmont and Antelope Buttes, Anaverde Valley, Lake Palmdale, terminating at Barrel Springs.

Joshua Tree Woodlands Significant Ecological Area

The Joshua Tree Woodlands Significant Ecological Area (SEA) is located in the western portion of the Antelope Valley west and northwest of the Antelope Valley California Poppy Reserve. The SEA consists of six separate units; five of these areas are in close proximity to each other between the Kern County line to the north, the California Aqueduct and Fairmont Butte to the south, 220th Street West to the west, and 140th Street West to the east. The sixth, and furthest extent of Joshua tree woodland in southern California, is located partially within the Angeles National Forest, east of the I-5 Freeway.

Santa Clara River Significant Ecological Area

The Santa Clara River Significant Ecological Area (SEA) encompasses the entire Los Angeles County reach of the Santa Clara River, primarily within unincorporated areas of Los Angeles County. The Santa Clara River SEA covers the length of the river and with the watershed extensions encompasses a wide variety of topographic features and habitat types. The orientation and extent of the SEA also consists of the surface and subsurface hydrology of the Santa Clara River, from its headwater tributaries and watershed basin to the point at which it exits Los Angeles County jurisdiction.

SCENIC RESOURCES

An exceptionally picturesque drive is along Elizabeth Lake Road, traversing the northern foothills of the Sierra Pelona/Liebre Mountains between Palmdale and Gorman. While perhaps not as majestic as routes through the Angeles National Forest, Elizabeth Lake Road is quite accessible, easy to drive, and shows off the diversity of the Antelope Valley. While its eastern extent is characterized by the expanding urban subdivisions of Palmdale, it passes through rural communities, Joshua tree desert, California poppy fields (the State flower), small lakes formed by the San Andreas fault, fertile orchards, and scenic woodlands.



Antelope Valley California Poppy State Natural Reserve

Many scenic resources within the Antelope Valley have been preserved as open space, including:

TABLE 3-1: Parks and Scenic Resources	
National Forests	
	Angeles National Forest
	Los Padres National Forest
State Parks	
	Antelope Valley Indian Museum State Historic Park
	Antelope Valley California Poppy State Natural Reserve
	Arthur B. Ripley Desert Woodland State Park
	Hungry Valley State Vehicular Recreation Area (OHV)
	Saddleback Butte State Park
Wildlife Sanctuaries	
	Alpine Butte Wildlife Sanctuary
	Big Rock Creek Wildlife Sanctuary
	Butte Valley Wildflower Sanctuary
	Devil's Punchbowl Natural Area
	Jackrabbit Flats Wildlife Sanctuary
	Mescal Wildlife Sanctuary
	Phacelia Wildlife Sanctuary
	Theodore Payne Wildlife Sanctuary
Regional Parks	
	Apollo Community Regional Park
	Stephen Sorensen Park
	Dexter Park
Community Parks	
	Acton County Park
	George Lane Park
Neighborhood Parks	
	Everett Martin Park
	Jackie Robinson Park
	Pearblossom Park
Golf Courses	
	Crystallaire Golf Course
	Elizabeth Lake Golf Course
Water Features	
	California Aqueduct
	Lake Pyramid, Elizabeth Lake, Lake Hughes, Rosamond Lake, Quail Lake
	Fairmont Reservoir, Bouquet Reservoir, Palmdale Reservoir, Littlerock Reservoir
	Kentucky Springs
Scenic Highway	
	Angeles Crest Highway

CLIMATE

Contributing to the creation of many of these scenic features is the wide spectrum of climatic conditions in the Antelope Valley. The desert endures summer temperatures often over 100 degrees, with winters cold enough to result in short-term blankets of snow—but it is noted for sunshine and clear skies nearly every day of the year. Rainfall on the desert floor is relatively low on an annual average, but flash flooding can occur as heavy rains fall over the mountains, resulting in major runoff. It is this flooding of the high desert in the northern part of the Antelope Valley that maintains the dry lakebeds of Edwards Air Force Base—perfect for space shuttle landings.

Dry winds with accompanying high evaporation rates are frequent. While they may create dust, they also help to alleviate the effects of the summer heat. Parts of the Antelope Valley have sufficiently strong and sustained winds to make electricity-generating wind turbines economically viable.

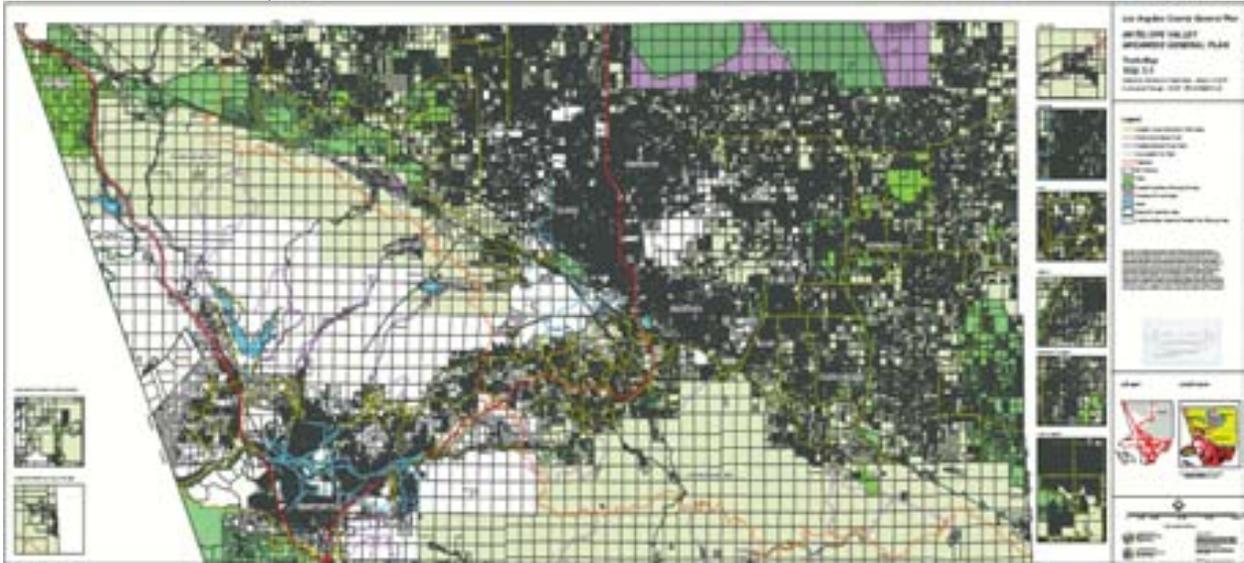
The higher mountain elevations have more temperate summers, but winter temperatures are often below freezing. Monthly temperature averages in the San Gabriels are as much as 25 degrees lower than Los Angeles Civic Center readings, providing a cool haven for summer recreation. The Sierra Pelona Range and the Liebre Mountain areas are somewhat drier and warmer than the San Gabriels, a result of lower elevations and a location to the lee of coastal ranges.

TRAILS

The residents of Los Angeles County—through County, State and local funds—have established a trails system to enjoy the many scenic and biotic resources of the Antelope Valley. The Antelope Valley Trails System is largely a project of the Los Angeles County Department of Parks and Recreation, supported by many local efforts—particularly within the equestrian community. The Antelope Valley Conservancy has been a leader in local efforts to plan for, secure rights-of-way and improve trails in the Antelope Valley, with special emphasis on linkages to the Pacific Crest Trail which has routes connecting Mexico and Canada through the western United States. While hiking trails are a part of the linkages between the nature based communities, equestrian trails play a significant role in providing riding opportunities in areas safe from urban-related constraints.

As the Antelope Valley continues to develop with urban uses, long range planning of a trails network will help ensure that appropriate planning standards and oversight are applied as permits for development are considered. Cross-jurisdictional coordination is as essential in creating a viable trails system as it is in providing an efficient roadway network.

MAP 3-3: Antelope Valley Trails Plan



CHAPTER 4

POPULATION, HOUSING, AND DEMOGRAPHICS

The basic objective of long-range planning is to provide the framework for meeting the needs of the population expected to reside or use the area—especially those needs centered on housing, employment, shopping and recreation. Good planning should 1) ensure that lands are set aside in a balanced, safe and efficient design for people to live, work and recreate and 2) identify lands to be protected in their natural state. To help lay out a well-organized set of land use policies and programs it is important to forecast the size and characteristics—demographics—of the expected population. This Chapter 4 of the Report establishes a picture of the existing population characteristics and the housing environment. Included is data on population and household counts; age, ethnicity, income and education of the residents, and related demographic information.¹



The population of the Antelope Valley is concentrated within its two incorporated cities—Palmdale and Lancaster. The people living here have somewhat different characteristics than those living in the more rural and dispersed communities throughout the area.



Acton

As thousands of acres of barren desert lands have been transformed into land subdivisions of attractive, comfortable and affordable housing over the past decade, the population of the Antelope Valley has skyrocketed. While much of the growth has been at urban densities in and adjacent to the cities of Palmdale and Lancaster, the desirability of rural living has seen significant growth in the many unincorporated communities as well.

¹ The data presented were obtained from the California Department of Finance, GAVEA, and SCAG 2004 RTP.

POPULATION DEMOGRAPHICS

Population

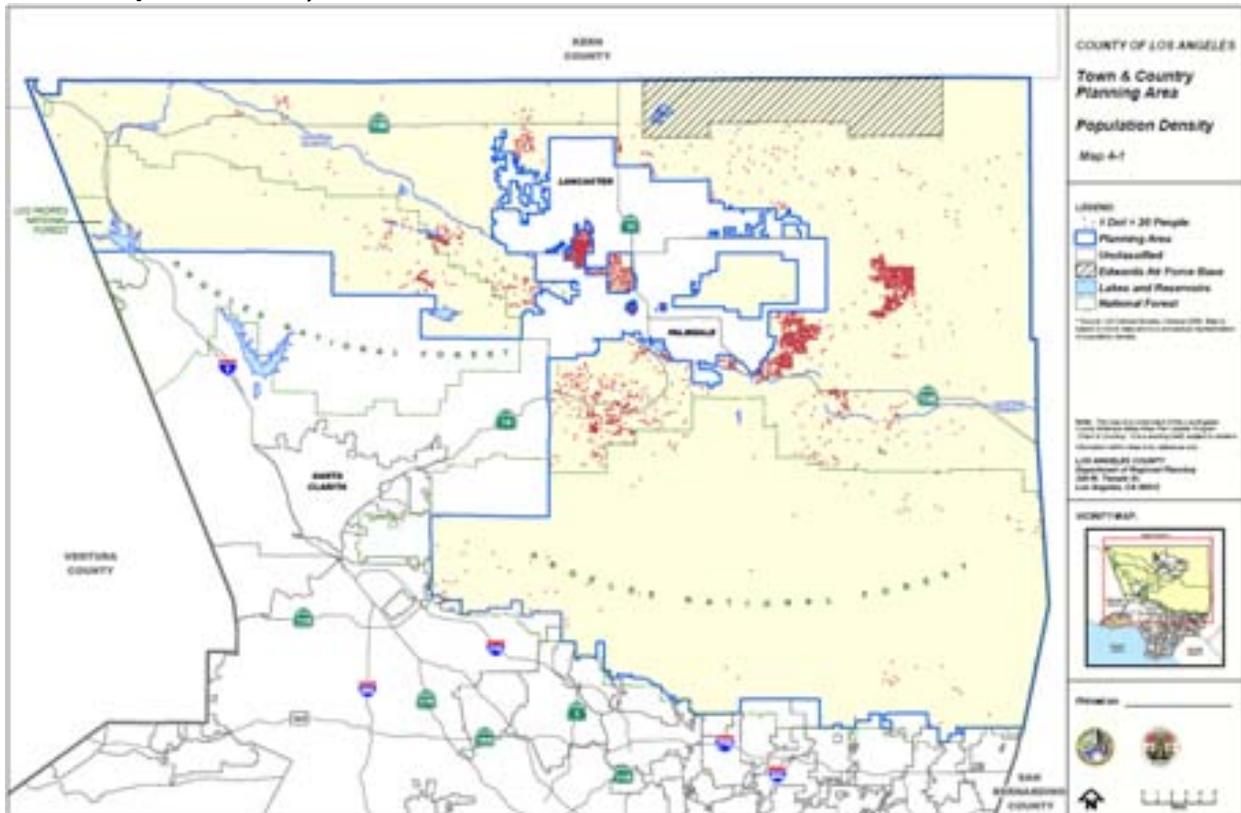
The Planning Area had a total population of 66,800 in the year 2000, representing approximately 22% of the entire Antelope Valley area’s population.

TABLE 4-1: Antelope Valley Population (2000)	
<i>LOCATION</i>	<i>TOTAL POPULATION</i>
Planning Area	66,800
City of Lancaster	118,718
City of Palmdale	116,670

Source: 2000 U.S. Census

Based on data from the 2000 U.S. Census (Census), a notable concentration of the population in the Planning Area can be seen in the communities of Quartz Hill, Lake Los Angeles, Littlerock, Sun Village and White Fence Farms, with smaller concentrations in Elizabeth Lake, Green Valley, Pearblossom and Antelope Acres. A large but more dispersed population is found in the greater Acton area.

MAP 4-1: Population Density



Population by Unincorporated Community

The Census groups the major unincorporated communities into defined Census tracts. Because the Census uses a different system of defining geographical areas, the Census tracts do not fit succinctly into the Planning Area. There are small portions of tracts that overlap into city jurisdiction that were included in data requiring Census tract level computation. The following map of Planning Area Census tracts is followed by a table reporting the 2000 population by Census tract, including a list of unincorporated communities within each tract. (Tracts are not in numerical order so that all tracts for a community can be grouped.) Please note that the total in this table includes minor portions within Palmdale and Lancaster; in such instances the data was readjusted by reviewing Census blocks and weighted accordingly. The table provides a valid picture of the relative sizes of the unincorporated communities.

MAP 4-2: Planning Area Census Tracts, 2000

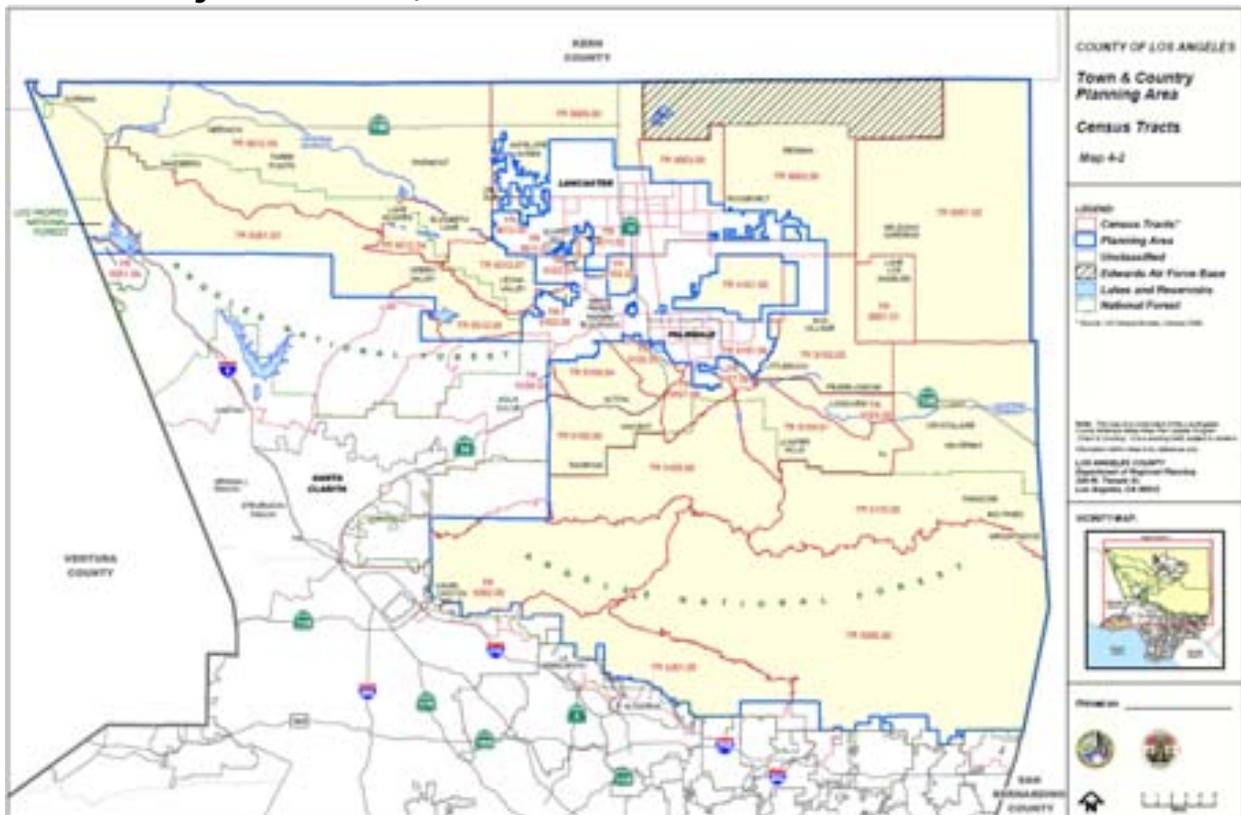


TABLE 4-2: Population (2000) by Census Tract

<i>COMMUNITY</i>	<i>TRACT</i>	<i>POPULATION</i>
Acton	910205	1040
Acton	910401	327
Acton	910708	439
Acton	910804	2502
Acton	910805	4423
Acton	910806	292
Acton	910803	348
Air Force Plant 42	910100	848
Angeles National Forest	930000	450
Angeles National Forest	930100	177
Angeles National Forest	930200	416
Angeles National Forest	460600	13
Angeles National Forest	920014	29
Antelope Acres	900900	2096
Antelope Acres	901205	1902
Gorman, Neenach, Three Points, Fairmont, Del Sur	901203	1478
Green Valley	901206	1174
Green Valley	920103	122
Juniper Hills	910901	1408
Kagel Canyon, Lopez Canyon	104107	93
Lake Hughes, Elizabeth Lake	901204	2408
Lake Los Angeles	900101	11658
Leona Valley	901207	1411
Leona Valley	910206	79
Llano, Crystalaire, Valeyeremo, Paradise, Wrightwood	911000	1245
Longview	910902	1366
Palmdale	910204	36
Palmdale Island	910203	2016
Quartz Hill	901101	2453
Quartz Hill	901102	4004
Quartz Hill	910301	2824
Quartz Hill	901004	70
Redman, Roosevelt	900200	1315
Redman, Roosevelt	900300	618
Sun Village, Littlerock, Pearblossom	910000	11027
Sun Village, Littlerock, Pearblossom	910709	561
Vincent	910707	9
White Fence Farms, El Dorado	910202	3147
Wilsona Gardens	900102	976
TOTAL	---	66800

Source: 2000 U.S. Census

Racial Mix

The racial composition of the Planning Area is largely diverse as shown in Table 4.4 below. As a single race, whites make up almost three-quarters of the population which includes Hispanics and are followed by Blacks, and Asians.

TABLE 4-3: Racial Mix (2000)

<i>RACE MIX</i>	<i>NUMBER</i>	<i>PERCENT OF TOTAL</i>
White	49,912	74.7%
Black	4,290	6.4%
Asian	994	1.5%
American Native	834	1.3%
Native Hawaiian & Other Pacific Islander	95	0.1%
Some Other Race	7,985	12.0%
Two or More Races	2,690	4.0%
Total	66,800	100%

Source: 2000 U.S. Census

Age of Population

The median population age for the Planning Area is 38.2 years which is higher than that in both the cities of Lancaster and Palmdale.

TABLE 4-4: Median Age (2000)

<i>LOCATION</i>	<i>MEDIAN AGE</i>
Planning Area	38.2
City of Lancaster	31.1
City of Palmdale	28.2

Source: 2000 U.S. Census, Data Set SF-1, Table P2

The following table shows quite a spread in median age among the unincorporated communities. When considering median age along with average household size, the relationship is obvious—the lower the median age the larger the household size. More than two persons in the household generally means that children are present, which lowers the median age. The community with the oldest median age of 45.7 years is Juniper Hills. With the exception of Air Force Plant 42 (Census Tract 910100), Lake Los Angeles has the youngest median age of 28.0 years, along with the largest average household size of 3.66.

TABLE 4-5: Median Age (2000) by Census Tract

COMMUNITY	TRACT	MEDIAN AGE	AVERAGE HOUSEHOLD SIZE
Acton	910205	40.0	2.91
Acton	910401	34.2	2.98
Acton	910708	38.2	2.87
Acton	910803	40.6	2.93
Acton	910804	37.5	3.13
Acton	910805	38.8	2.89
Acton	910806	38.5	2.33
Air Force Plant 42	910100	23.4	3.58
Angeles National Forest	460600	43.0	2.88
Angeles National Forest	920014	37.6	2.20
Angeles National Forest	930000	37.2	2.52
Angeles National Forest	930100	39.8	2.26
Angeles National Forest	930200	41.6	2.59
Antelope Acres	900900	42.9	2.64
Antelope Acres	901205	37.0	2.73
Gorman, Neenach, Three Points, Fairmont, Del Sur	901203	41.8	2.67
Green Valley	901206	37.9	2.52
Green Valley	920103	31.6	2.83
Juniper Hills	910901	45.7	2.47
Kagel Canyon, Lopez Canyon	104107	37.1	1.94
Lake Hughes, Elizabeth Lake	901204	34.3	2.64
Lake Los Angeles	900101	28.0	3.66
Leona Valley	901207	40.2	3.02
Leona Valley	910206	40.7	2.78
Llano, Crystalaire, Valeyeremo, Paradise, Wrightwood	911000	43.1	2.44
Longview	910902	39.4	2.63
Palmdale	910204	33.0	3.38
Palmdale Island	910203	32.2	3.40
Quartz Hill	901004	35.0	3.02
Quartz Hill	901101	32.8	2.93
Quartz Hill	901102	33.9	2.92
Quartz Hill	910301	39.7	3.00
Redman, Roosevelt	900200	37.2	2.98
Redman, Roosevelt	900300	39.7	2.45
Sun Village, Littlerock, Pearblossom	910000	33.2	3.45
Sun Village, Littlerock, Pearblossom	910709	38.3	3.14
Vincent	910707	26.7	3.12
White Fence Farms, El Dorado	910202	40.6	3.02
Wilsona Gardens	900102	41.3	2.71

Source: 2000 U.S. Census, Data Set SF-1, Table P2 & P17

Education

Of the adults aged 25 and older in the Planning Area, 25% have a college degree and 30.3% have attended some college. A higher proportion of residents of the Planning Area have high school diplomas and college experience compared with the population in the two cities—which is in line with the fact that more young residents live in the cities.

TABLE 4-6: Education of Adults 25 years and older (2000)

LOCATION	NO HIGH SCHOOL DIPLOMA	COMPLETED HIGH SCHOOL	SOME COLLEGE, NO DEGREE	ASSOCIATE DEGREE	BACHELOR'S DEGREE	GRADUATE OR PROFESSIONAL SCHOOL DEGREE
Planning Area	37.0%	25.0%	30.3%	8.0%	11.0%	6.0%

Source: 2000 U.S. Census

HOUSING CHARACTERISTICS

Housing Supply

This section provides a profile of the existing housing conditions in the Planning Area. Housing production during the last decade has lagged behind population growth in Los Angeles County as a whole, leading to escalating housing prices and fewer housing opportunities. Consequently, this has resulted in the influx of people into the Antelope Valley due to its available land and relatively low housing prices.

While housing development in the Antelope Valley continued to steadily increase between 2004 and 2006, it can be expected that market data will show that housing development from 2007 to the current time will either slow down or decline due to the current downturn of the economy.

TABLE 4-7: Growth in Housing Units (2004-2006)

LOCATION	2004	2005	2006
Planning Area	344	439	450
City of Lancaster	43,584	44,781	46,790
City of Palmdale	39,946	41,312	42,841

Source: GAVEA 2007 Economic Roundtable Report, Los Angeles County Assessor Building Report (2008)

TABLE 4-8: Housing Units (2000) by Census Tract

<i>COMMUNITY</i>	<i>TRACT</i>	<i>UNITS</i>
Acton	910205	392
Acton	910401	121
Acton	910708	161
Acton	910803	114
Acton	910804	837
Acton	910805	1,555
Acton	910806	90
Air Force Plant 42	910100	286
Angeles National Forest	460600	3
Angeles National Forest	920014	31
Angeles National Forest	930000	204
Angeles National Forest	930100	81
Angeles National Forest	930200	147
Antelope Acres	900900	868
Antelope Acres	901205	1,009
Gorman, Neenach, Three Points, Fairmont, Del Sur	901203	668
Green Valley	901206	487
Green Valley	920103	39
Juniper Hills	910901	656
Kagel Canyon, Lopez Canyon	104107	52
Lake Hughes, Elizabeth Lake	901204	940
Lake Los Angeles	900101	3,505
Leona Valley	901207	549
Leona Valley	910206	29
Llano, Crystalaire, Valeyeremo, Paradise, Wrightwood	911000	665
Longview	910902	597
Palmdale	910204	10
Palmdale Island	910203	635
Quartz Hill	901004	26
Quartz Hill	901101	878
Quartz Hill	901102	1,476
Quartz Hill	910301	1,008
Redman, Roosevelt	900200	510
Redman, Roosevelt	900300	265
Sun Village, Littlerock, Pearblossom	910000	3,519
Sun Village, Littlerock, Pearblossom	910709	196
Vincent	910707	2
White Fence Farms, El Dorado	910202	1,118
Wilsona Gardens	900102	543
Total	---	24,272

Source: U.S. Census

Housing Prices

Although the average sales price for Antelope Valley homes has been steadily increasing over the past several years, homes in the Antelope Valley are still reasonably priced compared to the rest of Los Angeles County. The table below shows the median housing prices for the cities of Lancaster and Palmdale. The nationwide housing market recession since these figures were reported will show a decrease in 2009 values since 2006.

TABLE 4-9: Median Housing Prices (2005-2008)

LOCATION	2005	2006	2007	2008
City of Lancaster	\$325,000	\$338,000	\$283,750	\$150,000
City of Palmdale	\$358,500	\$379,500	\$300,000	\$150,000
Entire Los Angeles County	\$495,000	\$529,000	\$475,000	\$320,000

Source: California Association of Realtors "Historical City Median Home Price Statistics"

Housing Affordability

The housing affordability index takes several factors into account to derive the assigned index: median housing price, down payment, interest rate, and monthly payments for principal, interest, taxes and insurance. The Planning Area is located within the High Desert and generally has always been much more affordable than the rest of Los Angeles County. In 2008, it is almost twice as costly to live in other parts of Los Angeles County as it is to live in the Planning Area.

This has contributed to the population growth of the area as people migrate to many of the communities within the Antelope Valley seeking affordable home ownership. In turn, many residents have had to commute further distances to access greater employment opportunities. This will be discussed in Chapter 5.

TABLE 4-10: Housing Affordability Index – First Quarter Average

LOCATION	2005	2006	2007	2008
High Desert	53	41	44	64
Los Angeles County	29	21	21	35

Source: California Association of Realtors

GROWTH PROJECTIONS

Population Projections

A significant portion of population growth in Los Angeles County over the past decade has occurred in North Los Angeles County which includes the Antelope Valley. The Planning Area grew by 15,766 residents from 2000 to 2005, reaching 82,566, and is estimated to grow by 194% from 2005 to 2030, reaching 243,015.

TABLE 4-11: Antelope Valley Population Projections 2000 to 2030

LOCATION	2000	2005	2010	2015	2020	2025	2030
Planning Area	66,800	82,566	108,203	137,175	173,491	208,811	243,015
City of Lancaster	118,718	135,672	160,650	181,493	202,406	222,761	242,523
City of Palmdale	116,670	138,423	182,663	220,121	257,545	293,971	329,321

Source: 2000 U.S. Census, SCAG RTP 2008 – Unincorporated Area data have been adjusted by Los Angeles County Department of Regional Planning

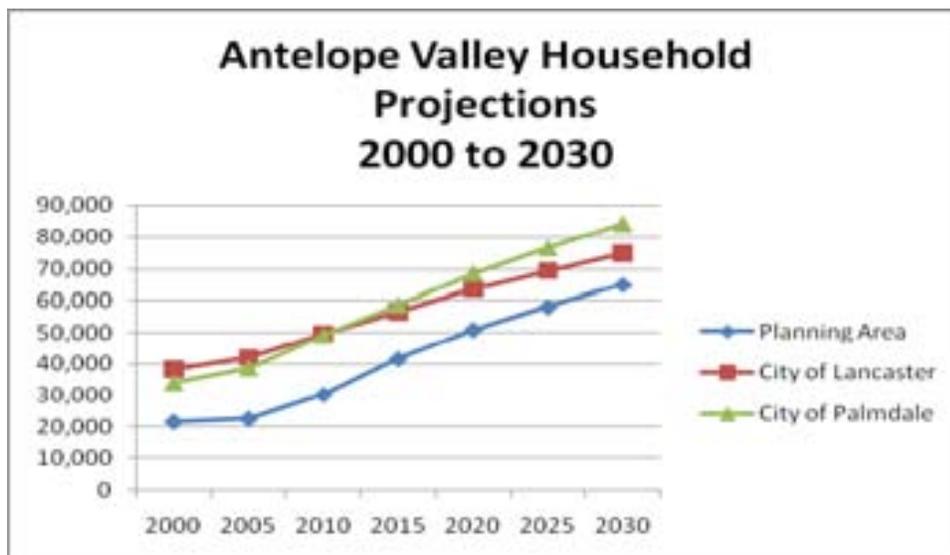
Housing Projections

TABLE 4-12: Antelope Valley Household Projections 2000 to 2030

LOCATION	2000	2005	2010	2015	2020	2025	2030
Planning Area	21,803	22,755	30,378	41,731	50,944	58,047	64,961
City of Lancaster	38,224	41,924	49,331	56,245	63,532	69,220	74,713
City of Palmdale	34,285	38,893	49,143	58,710	68,791	76,661	84,262

Source: SCAG RTP 2008

FIGURE 4-1: Antelope Valley Household Projections 2000 to 2030



Source: SCAG RTP 2008

The Antelope Valley remains one of the few regions in Los Angeles County with plentiful and affordable land for commercial and industrial development. This chapter examines the existing economic conditions in the Planning Area and addresses key economic issues and opportunities. It discusses employment projections, the jobs-housing ratio, the labor force, and other economic characteristics of the Planning Area.

Of concern to government is that the growth experienced by the Planning Area in the past decade has resulted in higher demand for public services, such as fire, law enforcement, parks and recreation, public works, and schools. Government revenues need to keep up with the cost of providing high quality public services and facilities.

INCOME & EMPLOYMENT

Table 5-1 shows the income percentages of Planning Area residents who were working in 1999 based on U.S. Census data.

TABLE 5-1: Planning Area Household Income in 1999

	<i>POPULATION</i>	<i>PERCENTAGE</i>
Total:	40,656	100%
less than \$20,000	7,346	18%
\$20,001 - \$34,999	6,067	15%
\$35,000- <\$49,999,	6,076	15%
\$50,00 - < \$99,999	14,741	36%
\$100,000 - \$199,999	5,551	14%
\$200,000 or more	857	2%

Source: US Census 2000 - SF3, P52

According to the Los Angeles Economic Development Corporation (LAEDC), the average annual income in the Antelope Valley in (including both incorporated and unincorporated communities) was \$37,727, or 78% of the Countywide average (\$48,152).

Between 2006 and 2007 the LAEDC reported a 2.2% percent growth in jobs (1,600 total jobs) in the Antelope Valley. Sectors experiencing the greatest growth were government, education and health services (1,345 jobs total). According to 2000 US Census data (Fig 5.2), the government remains a major local employer- accounting for nearly 20 percent of all employed persons in the planning area. LAEDC data was not uniformly positive. The greatest job loss experienced by the Antelope Valley as reflected in LAEDC data was in the construction industry, where the

housing crash and water availability issues resulted in the loss of 640 jobs. Given recent economic trends in the housing industry, this data may only begin to hint at the job losses that could occur in the next several years for housing and related industries.

TABLE 5-2: Industry By Class of Worker for the Employed Civilian Population 16 Years and Over

WORKER CLASS	POPULATION	PERCENTAGE
Employees of Private Company: Wage and Salary worker	15,877	62.9%
Government Workers, Total:	4,666	19.8%
• Government Workers, Local	2,958	12.3%
• Government Workers , State	886	3.9%
• Government Workers , Federal	822	3.6%
Self-Employed in Own Business (Incorporated and Unincorporated Business)	3,567	11.6%
Private not-for profit wage and salary workers	1,377	5.1%
Unpaid family workers	137	0.5%
Total Workers	25,624	100.0%

Source: 2000 US Census - SF3, P51

AGRICULTURE

While agricultural uses are declining in general as urbanization progresses throughout the County, the Antelope Valley contains the largest amount of productive farmland in the County. The value of Antelope Valley's agricultural production in 2006 was \$270,915,000, ranking Los Angeles County 28th among California's 58 counties.¹ The majority of the agricultural uses located in the Antelope Valley identified by the California State Department of Conservation are in unincorporated territory.

TABLE 5-3: Top Five Crops by Value (2006)

Trees and Shrubs, Ornamental	\$119,147,000
Plants, Bedding	\$37,041,000
Root Vegetables	\$29,446,000
Orchard Fruit	\$18,474,000
Alfalfa	\$8,350,000

Source: 2006 Los Angeles County Crop and Livestock Report

¹ Los Angeles County Agricultural Commissioner / Weights & Measures, *Los Angeles County Crop and Livestock Report*, 2006.

Agricultural land represents a significant portion of the Antelope Valley when National Forest lands and Edwards Air Force Base are exempted, (Table 5-4). Among the agricultural uses in the Planning Area are grazing lands, alfalfa, orchards for stone fruits and vineyards. New trends, such as the rise of interest in organic and local produce may also signal new opportunities for farming in the Antelope Valley. California farm revenues saw record highs in 2005 and an upward surge in 2007. While much of the gain was attributed to high dairy prices (dairies are non-reported in Los Angeles County), crops saw increases in both price and production.

MAP 5-1: Farmlands

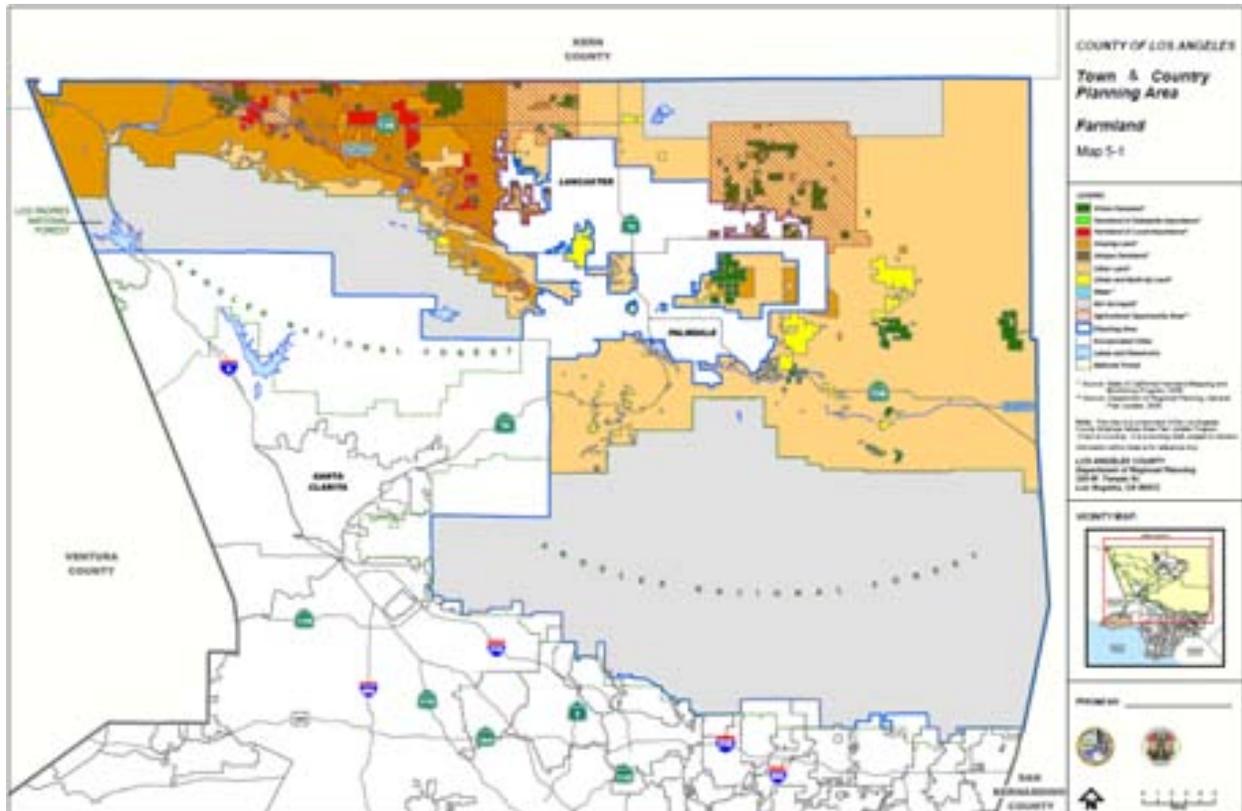


TABLE 5-4: Total Land In Use (Minus Undifferentiated Water and Vacant)

LAND USE	ACRES	PERCENTAGE
Agriculture	62,772.37	39.73%
Military Facility	47,757.58	30.23%
Rural Residential	20,381.63	12.90%
Public Facility	13,374.81	8.47%
Urban Residential	6,976.95	4.42%
Open Space	3,824.11	2.42%
Transportation	1,390.37	0.88%
Industrial	500.31	0.32%
Commercial	393.80	0.25%
Airport	621.89	0.39%
Total Land	157,993.82	100.00%

Source: DRP revised 2001 SCAG data

FIGURE 5-1: Total Land in Use (Minus Undifferentiated Water and Vacant)

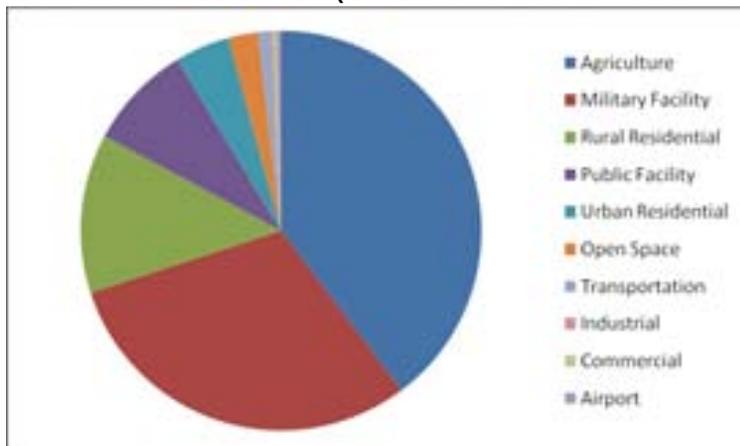


TABLE 5-5: Farmland Type

FARMLAND TYPE	TOTAL ACRES	TOTAL SQ. MILES	PERCENTAGE
Farmland of Local Importance	8,824.22	13.79	0.77%
Farmland of Statewide Importance	790.04	1.23	0.07%
Grazing Land	131,910.47	206.11	11.45%
Prime Farmland	23,659.06	36.97	2.05%
Unique Farmland	278.61	0.44	0.02%
Urban and Built-Up Land	16,428.14	25.67	1.43%
Not Surveyed	572,392.66	894.36	49.69%
Other Land	396,976.43	620.28	34.46%
Water	724.22	1.13	0.06%
Total	1,151,983.85	1,799.97	100.00%

Source: 2006 California Department of Conservation - Farmland Mapping and Monitoring

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) produces maps and data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and irrigation status. The maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance. The FMMP Los Angeles County field report from 2006 presents a window into changes within the Antelope Valley's agricultural land over the past 2 years. It notes that the areas around the incorporated cities of Lancaster and Palmdale saw home additions occur on Local, Grazing or Other Land.

The Los Angeles County Farm Bureau (LACFB), a non-profit organization dedicated to the support and preservation of agriculture throughout Los Angeles County, has identified the following major farming issues in the County which may limit the overall potential of growth in the agriculture industry:

1. Water and Use of Reclaimed Water
2. Groundwater Contamination
3. Environmental Protection
4. Burn Regulations (allowing agricultural/crop burning)

Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value. Local governments receive an annual subvention of these forgone property tax revenues from the state via the Open Space Subvention Act of 1971.

The FMMP sorts agricultural uses into five categories:

- **PRIME FARMLAND (P)**
Farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Prime Farmland must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **FARMLAND OF STATEWIDE IMPORTANCE (S)**
Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store moisture. This land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **UNIQUE FARMLAND (U)**
Farmland of lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. This land must have been cropped at some time during the four years prior to the mapping date.
- **FARMLAND OF LOCAL IMPORTANCE (L)**
Land of importance to the local agricultural economy as determined by each county's Board of Supervisors and local advisory committee, where applicable.
- **GRAZING LAND (G)**
Land on which the existing vegetation is suited to grazing of livestock.

The FMMP also identifies non-agricultural resources with three additional categories:

- **URBAN AND BUILT-UP LAND (D)**
Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, or other developed purposes.
- **OTHER LAND (X)**
Land not included in any other mapping category. This may include brush and timber, animal confinement facilities, mines or bodies of water lesser than 40 acres. Vacant land greater than 40 acres surrounded by urban areas is also marked as Other Land.
- **WATER (W)**
Perennial water bodies greater than 40 acres.

Currently, the Planning Area does not contain any lands that have entered into Williamson Act contracts. The only Williamson Act contracts maintained in the County are for the preservation of open space on Santa Catalina Island.

JOBS/HOUSING RATIO

In 2005 the Planning Area had a jobs-household ratio of 0.43, which is substantially lower than that of the rest of Los Angeles County. There is still a need to grow the local economy to provide a better match between the Planning Area's labor force and the area's available employment. Due to the shortage of jobs in the Antelope Valley, 33 percent of residents travel outside of the Valley for work.

By comparing the census data on the overall travel times of the Planning Area (Figures 5-7 and 5-8) to the rest of Los Angeles County (including incorporated areas) it becomes apparent that the Antelope Valley has significantly higher commute times for the population than Los Angeles County as a whole- with the percentage of workers traveling an hour or longer to reach their workplace in percentages three times greater than the average commute in other areas of Los Angeles County.

TABLE 5-6: Jobs-Housing Ratio

LOCATION	JOBS	HOUSING	RATIO
City of Lancaster	52,791	44,781	1.18
City of Palmdale	45,876	41,312	1.11
Antelope Valley	110,202	119,253	0.92

Source: SCAG RTP 2004, GAVEA 2004 Economic Roundtable Table

TABLE 5-7: Planning Area Travel Time to Work for Workers 16 Years and Over

	POPULATION	PERCENTAGE
Worked at home	2,173	4.4%
Did not work at home:	47,047	95.6%
<5- 19 minutes	15,783	32.1%
20 to 59 minutes	17,083	34.7%
60 or more minutes	14,181	28.8%
Worked at home	2,173	4.4%
Total:	49,220	100.0%

Source: US Census - SF3, P31

TABLE 5-8: Los Angeles County Travel Time to Work for Workers 16 Years and Over (Excluding Antelope Valley Planning Area)

	POPULATION	PERCENTAGE
Worked at home	132,470	3.5%
Did not work at home:	3,721,934	97.7%
<5-19	1,301,877	34.2%
20 - 59 minutes	1,982,317	52.0%
60 or more minutes	392,866	10.3%
Total:	3,809,530	100.0%

Source: US Census - SF3, P31

EMPLOYMENT PROJECTIONS

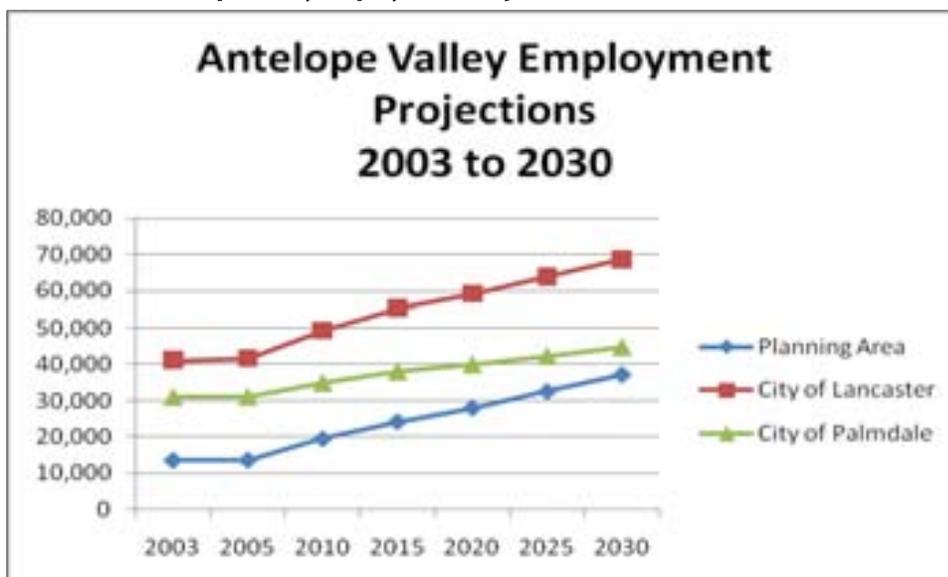
The table and chart below indicate that while the Planning Area’s employment will grow substantially by 2030, it will lag behind the growth in households.

TABLE 5-9: Antelope Valley Employment Projections 2003 to 2030

LOCATION	2003	2005	2010	2015	2020	2025	2030
Planning Area	13,625	13,688	19,510	24,199	28,018	32,530	37,134
Lancaster	41,112	41,593	49,280	55,388	59,291	63,878	68,774
Palmdale	31,132	31,226	35,055	38,105	40,047	42,333	44,772

Source: SCAG RTP 2008

FIGURE 5-2: Antelope Valley Employment Projections 2003 to 2030



Source: SCAG RTP 2008

THE GREATER ANTELOPE VALLEY

The Greater Antelope Valley Economic Alliance (GAVEA) has done numerous studies of the economic background of the Greater Antelope Valley - a study area which extends beyond North Los Angeles into Kern County. While much of the GAVEA survey area is located outside the Planning Area, the industries and resources of the Greater Antelope Valley have an impact on the residents of the Planning Area as demonstrated previously.

FIGURE 5-3: Greater Antelope Valley Economic Region



Source: Greater Antelope Valley Economic Alliance

Table 5-10 reports the distribution of the Greater Antelope Valley 2003 household incomes among income categories.

TABLE 5-10: 2003 Household Income Distribution

	LANCASTER	PALMDALE	ANTELOPE VALLEY
Less Than \$14,000	16.4%	13.6%	14.5%
\$15,000 – \$24,999	12.1%	9.7%	9.9%
\$25,000 - \$34,999	11.5%	10.4%	9.3%
\$35,000 - \$49,000	15.8%	15.6%	13.5%
\$50,000 - \$59,000	9.7%	9.5%	8.4%
\$60,000 - \$74,999	10.3%	12.2%	11.4%
\$75,000 - \$99,999	11.1%	13.7%	13.6%
\$100,000 And Greater	13.1%	15.3%	19.4%

Source: Alfred Gobar Associate; AnySite.com – Integration Technologies, Inc.

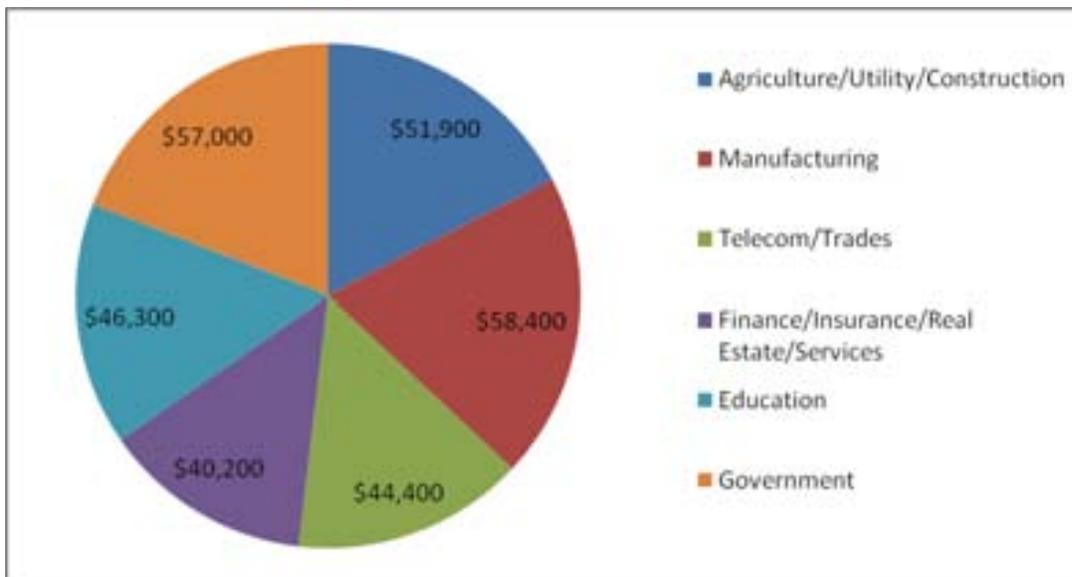
Table 5-11 reports the average earnings by industry group; the average is \$46,900. The much higher household income is reflective of multiple incomes within a household.

TABLE 5-11: 2007 Industry Group Average Earnings

INDUSTRY	EARNINGS
Agriculture/Utility/Construction	\$51,900
Manufacturing	\$58,400
Telecom/Trades	\$44,400
Finance/Insurance/Real Estate/Services	\$40,200
Education	\$46,300
Government	\$57,000
Overall	\$46,900

Source: GAVEA 2007 Antelope Valley Labor Market Study

FIGURE 5-4: 2007 Industry Group Average Earnings



Source: GAVEA 2007 Antelope Valley Labor Market Study

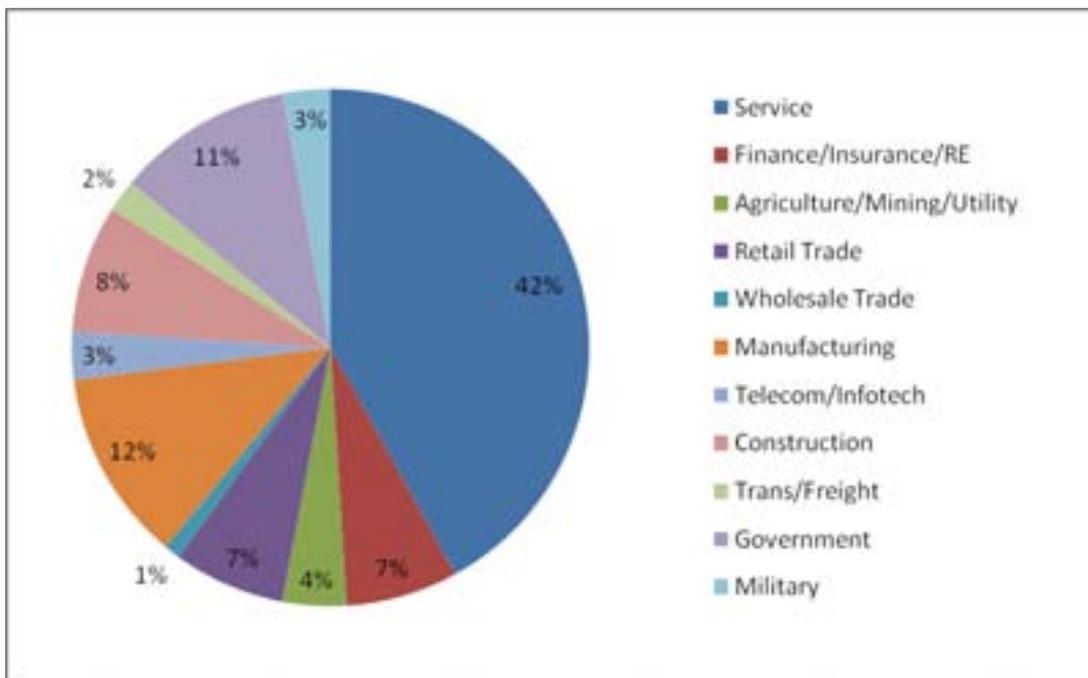
The service industry comprises the largest portion of the Greater Antelope Valley labor force with 42% of the jobs. The manufacturing industry comprises 12% of the jobs labor force, 54% of which are in aerospace.

TABLE 5-12: Labor Force Distribution

INDUSTRY	PERCENT
Service	42%
Finance/Insurance/RE	7%
Agriculture/Mining/Utility	4%
Retail Trade	7%
Wholesale Trade	1%
Manufacturing	12%
Telecom/Infotech	3%
Construction	8%
Trans/Freight	2%
Government	11%
Military	3%

Source: GAVEA 2007 Antelope Valley Labor Market Study

FIGURE 5-5: Labor Force Distribution



Source: GAVEA 2007 Antelope Valley Labor Market Study

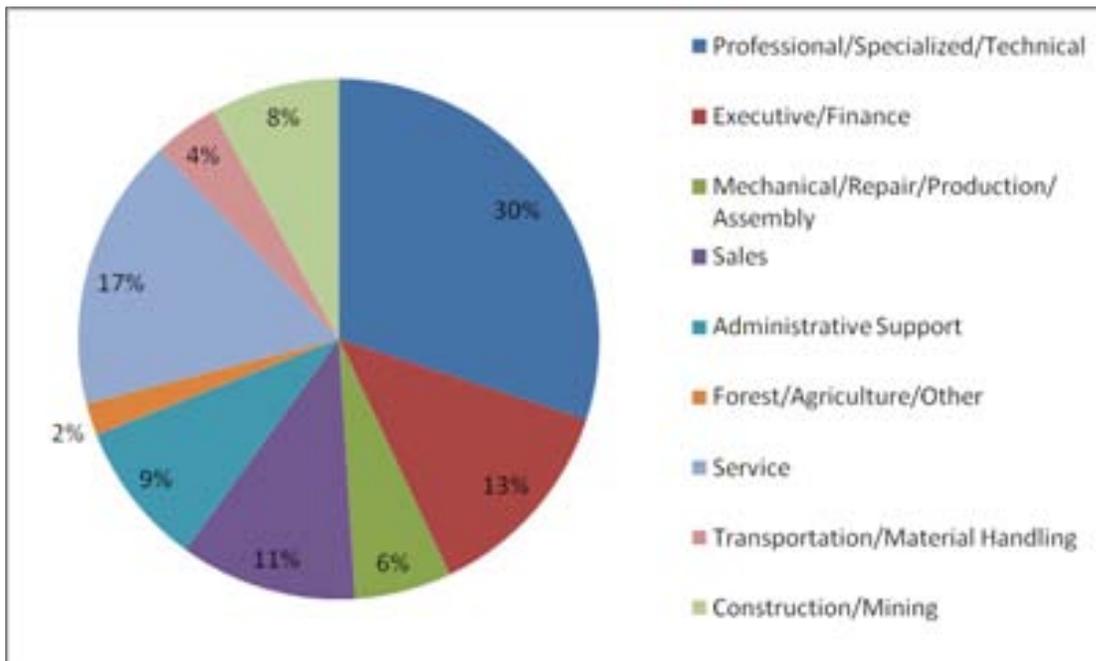
Nearly half of the occupational skills of the labor force are concentrated in the Professional/Specialized/Technical and Service industries.

TABLE 5-13: Occupational Skills of Labor Force
 Professional/Specialized – Physicians, Chemists, Engineers, Etc.
 Executive/Management – Directors, Plant/Facility Managers, Etc.

Occupation	Average
Professional/Specialized/Technical	30%
Executive/Finance	13%
Mechanical/Repair/Production/Assembly	6%
Sales	11%
Administrative Support	9%
Forest/Agriculture/Other	2%
Service	17%
Transportation/Material Handling	4%
Construction/Mining	8%

Source: GAVEA 2007 Antelope Valley Labor Market Study

FIGURE 5-6: Occupational Skills of Labor Force



Source: GAVEA 2007 Antelope Valley Labor Market Study

ECONOMIC OPPORTUNITIES

The Antelope Valley’s abundant and affordable land is limited in economic development potential only by the physical constraints that the environment places on it.

The Antelope Valley is a major employment center for the aerospace industry. U.S. Air Force Plant 42 in the city of Palmdale is home to Boeing, Northrop Grumman, and BAE Systems, among other aerospace-related companies and is the largest single employer in the Planning Area with a work force of over 9,000 people. This availability of vacant and sparsely inhabited land in Los Angeles County makes this area uniquely appropriate for those projects which require space.

In addition to the aerospace industry, the open spaces of the Antelope Valley have become the County’s last bastions of agricultural uses. Grazing lands, prime soils and historic orchards are all located within the Planning Area, and provide valuable local products. The Antelope Valley has an opportunity to manage this resource which contributes significantly to the County’s economy.

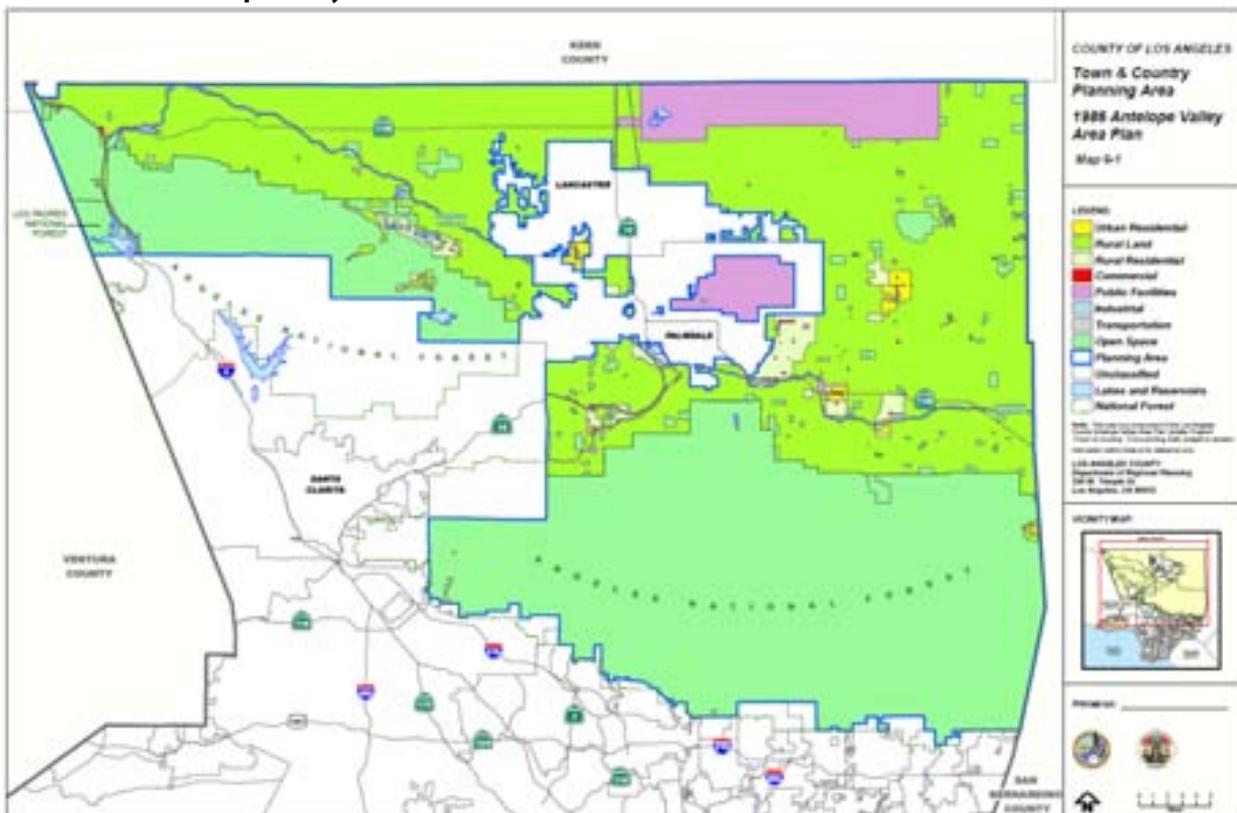
Expanding the attractiveness and availability of these local employment opportunities would help reduce long commute times experienced by residents, and would ensure the long term viability of communities in the Antelope Valley.

1986 ANTELOPE VALLEY AREAWIDE GENERAL PLAN

Adopted in 1986, the Antelope Valley Areawide General Plan has served as the land use planning document for the Planning Area for the past 22 years. This Plan guided the development and management of land within the Antelope Valley through its goals and policies. Additionally, the Plan's land use map designated allowable uses and densities for land within the Planning Area. The land use patterns and densities in the community that we observe today are in part a result of this Plan.

The Plan's land use map designated the Antelope Valley as a predominantly agricultural community with limited commercial and industrial uses. As shown in the 1986 land use map (see Map 6-1) and table (see Table 6-1), the majority of the Planning Area is designated as Non-urban 1 (N-1) and Non-urban 2 (N-2). These land designations primarily allow for development of residential and agricultural uses.

MAP 6-1: 1986 Antelope Valley Area Plan



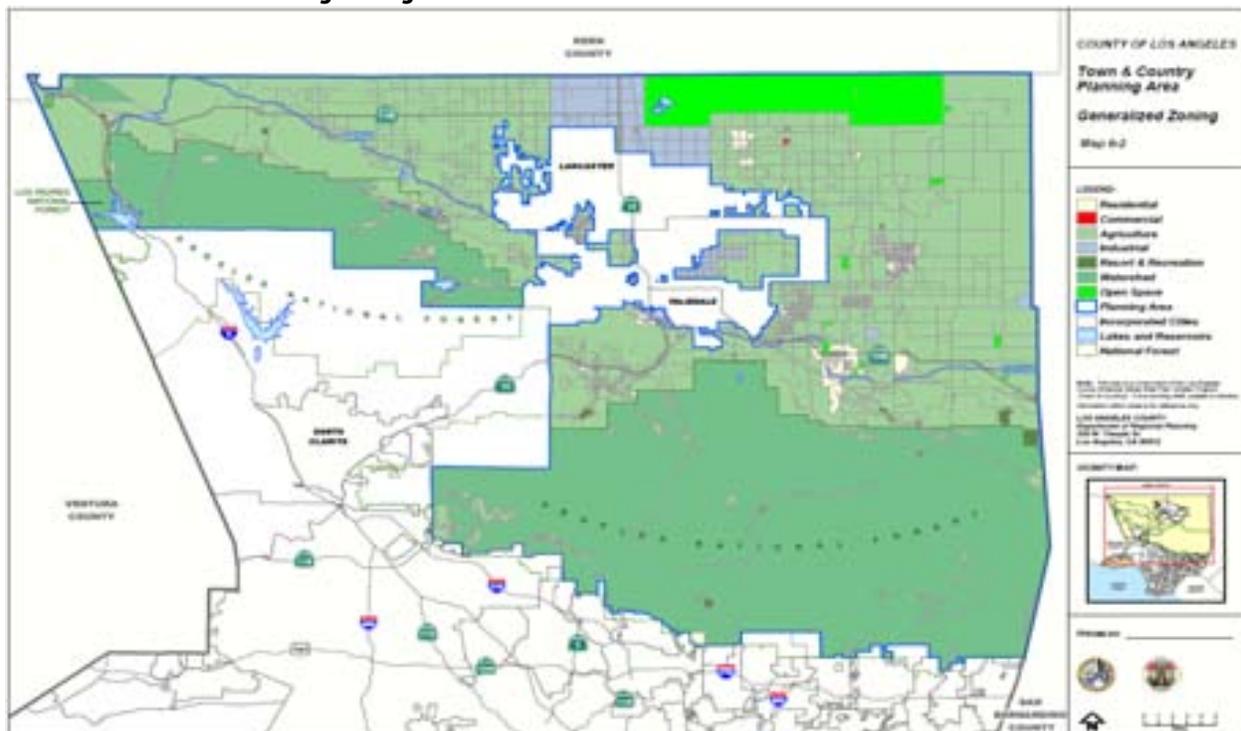
ZONING

The zoning of unincorporated Los Angeles County was established in 1927, at which time the sparsely populated Antelope Valley was placed entirely in an “Unclassified” zone. By 1957 only about 10% of the area had received more precise zoning. But, then recognizing the impending growth, the Board of Supervisors authorized comprehensive planning and zoning studies of the Antelope Valley, resulting in nearly all of the area receiving precise zoning by mid 1959. Since then, zoning has been modified to encourage and support urban development consistent with the potential of various communities for such development.

Zoning is the designation of allowable uses upon the land—either those uses permitted outright (but still subject to other code regulations), or those which may be permitted through a review and evaluation of the specific proposed use and design. As more and more people inhabit an area and live closer together, it is important to impose such regulations to protect the rights, health and safety of everyone. Zoning helps to lay out efficient use patterns and to set aside areas for various public interests, including open space and services.

Zoning is not a long range plan; it reflects current needs to a large extent, but can be modified as changed conditions warrant. A general plan provides a long range objective for the design of an area, without the regulatory details of zoning. In reviewing the current zoning map, below, the more intense uses in the Planning Area are near Lancaster and Palmdale or centered in some of the larger rural communities.

MAP 6-2: Generalized Existing Zoning



LAND DEVELOPMENT

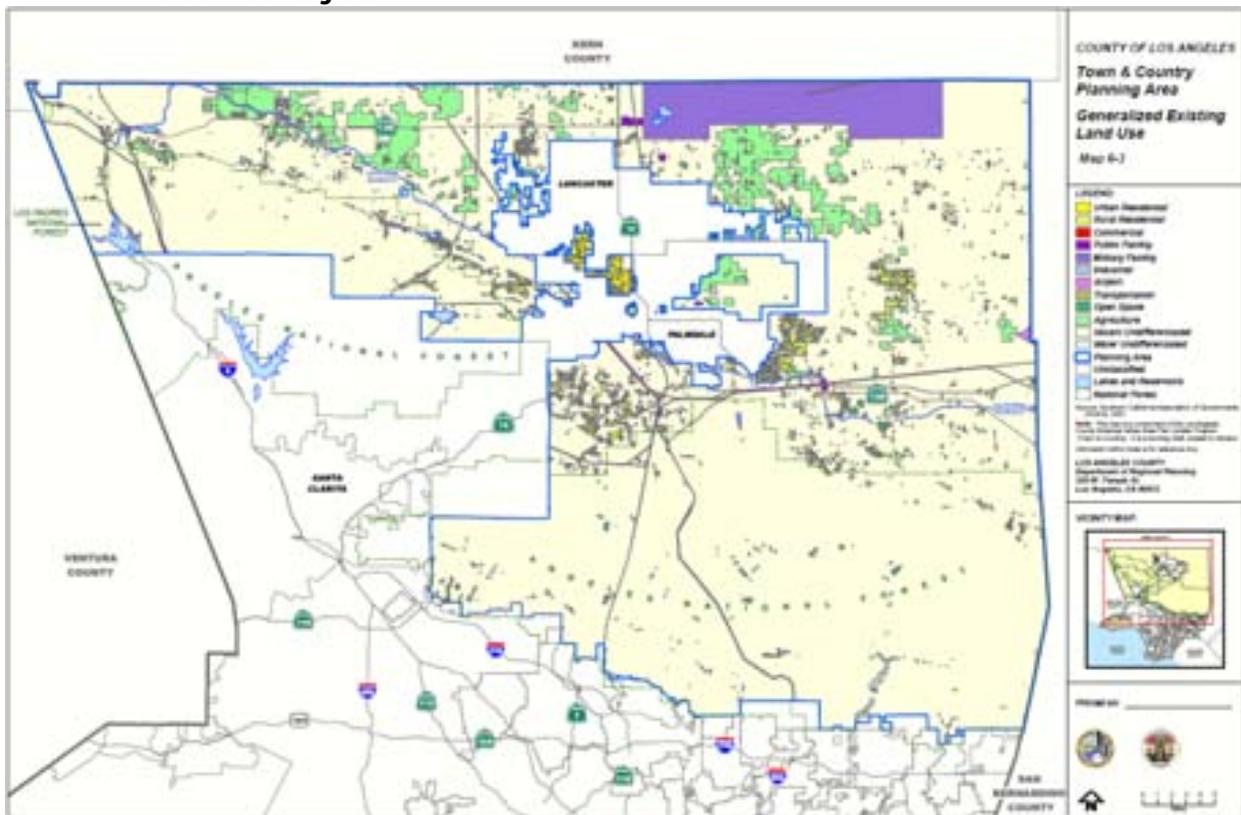
The evidence of human intervention in the Antelope Valley over the past one-hundred years is significant—from the creation of vast housing subdivisions over previously untouched desert lands, to major military installations, to construction of concrete highway and aqueduct ribbons traversing and connecting the Antelope Valley with points north and south.

As the Antelope Valley develops, housing and employment opportunities are coming into balance. Today the lands of the Antelope Valley reflect several objectives—from protecting sensitive natural biotic communities, to preserving the character of rural communities, to providing for the urban expansion needs of Southern California, to supplying lands for agricultural production, and to meeting the nation’s need for military facilities.

CURRENT USE OF LAND

The following map depicts the distribution of major land uses throughout the Planning Area. The concentrations of residential, commercial and industrial uses are reflective of the population distribution map in the previous Chapter 4.

MAP 6-3: Generalized Existing Land Use



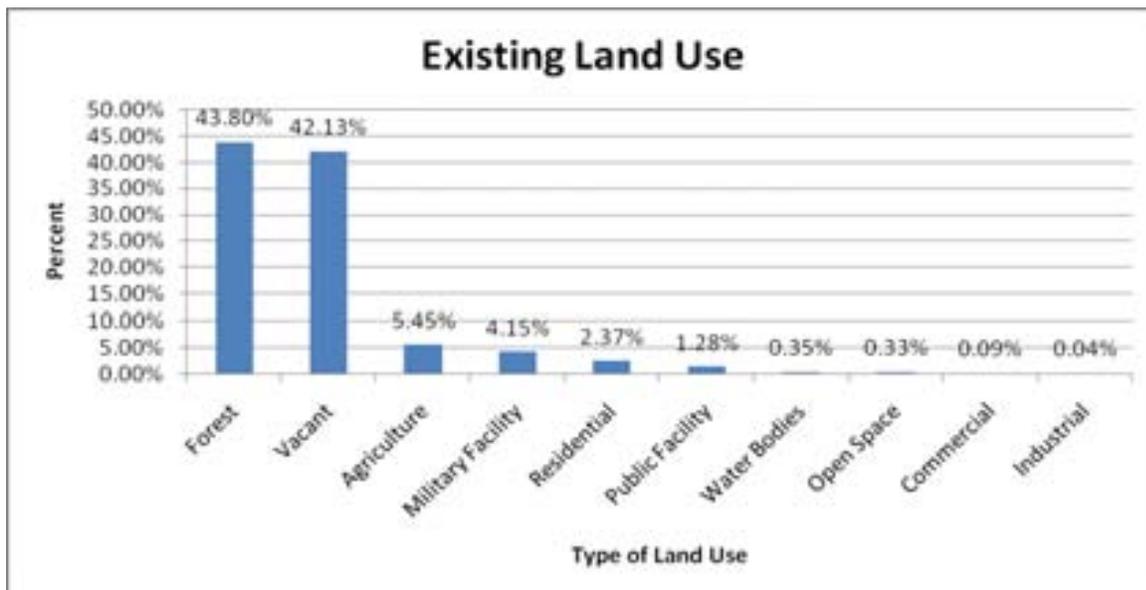
Currently, the majority of land in the Planning Area is vacant or forest land. The military was long a major employer in the Antelope Valley, occupying extensive acreage with Edwards Air Force Base and Air Force Plant 42. Today, agricultural uses are a prominent user of the land followed by military facilities and residential homes.

TABLE 6-1: Existing Land Uses in the Planning Area

EXISTING LAND USE	ACRES	PERCENTAGE
Forest	504653	43.80%
Vacant	485332	42.13%
Agriculture	62772	5.45%
Military Facility	47758	4.15%
Residential	27359	2.37%
Public Facility	14765	1.28%
Water Bodies	4084	0.35%
Open Space	3824	0.33%
Commercial	1016	0.09%
Industrial	500	0.04%
Total	1,152,063	100.00%

Source: Southern California Association of Governments (SCAG), 2001

FIGURE 6-1: Existing Land Uses in the Planning Area

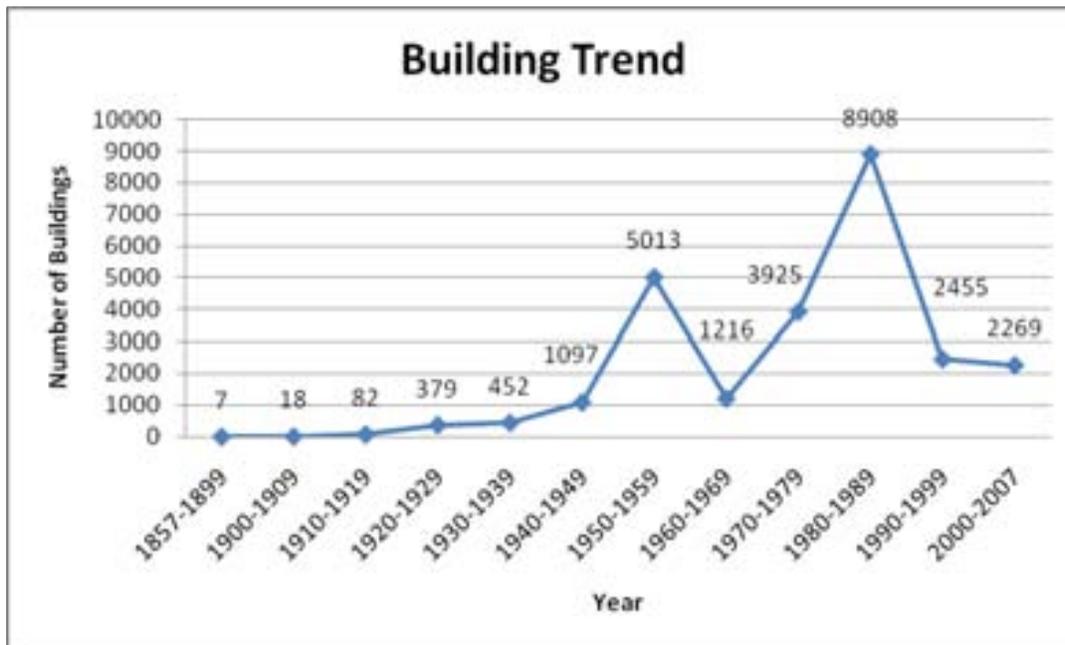


Source: Southern California Association of Governments (SCAG), 2001

BUILDING TRENDS

Development in the Planning Area slowly crept along seeing two major building peaks in the 1950s and 1980s.

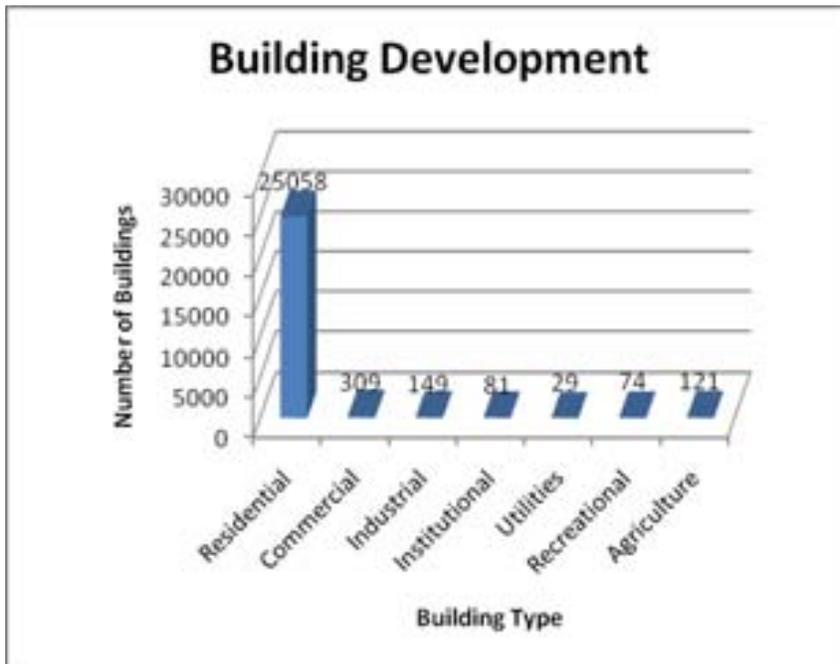
FIGURE 6-2: Building Trends in the Planning Area



Source: Los Angeles County Office of the Assessor, 2008

While the previous section described agriculture and military facilities as being major land uses in acreage terms, residential development tops the chart in number of structures built on the ground. By the end of 2007, a total of 25,058 housing structures scatter across the Planning Area. Combined, other varied building developments used for purposes such as commercial activity, make up only 3% of the total number of structures on the ground. Residential structures comprise the majority at 97%.

FIGURE 6-3: Building Development in the Planning Area



Source: Los Angeles County Office of the Assessor, 2008

TRANSPORTATION

Freeways and Highways

The Antelope Valley has a backbone of two major freeways, the Golden State Freeway (Interstate 5) and the Antelope Valley Freeway (State Route 14). State Route 138, a major highway, connects the two freeways across the northern edge of Los Angeles County, and continues across the southern Antelope Valley to Victorville and Interstate 15 in San Bernardino County.

Traffic volumes on all of these through routes are high and are expected to continue to rise. From 1996 to 2006, volumes on all three grew an average of 36 percent (Table 7-1). In addition, truck traffic is high on Interstate 5 and State Route 138, with up to 29 percent of total volume attributed to commercial vehicles in 2006.



State Route 14

TABLE 7-1: Traffic Volumes

Route	Description	Postmile	Leg	2006			2006-1996				1996		
				AADT* (All Vehicles)	AADT* (Trucks)	Truck %	AADT Change	AADT % Change	Truck Change	Truck % Change	AADT* (All Vehicles)	AADT* (Trucks)	Truck %
5	Santa Clarita, South Jct. Rte. 126, Magic Mountain Pkwy	53.6	B	151,000	18,618	12	36,000	31	-1,061	-5	115,000	19,679	17
5	Santa Clarita, North Jct. Rte. 126, Henry Mayo	55.5	B	122,000	18,251	15	33,000	37	3,121	21	89,000	15,130	17
5	Santa Clarita, North Jct. Rte. 126, Henry Mayo	55.5	A	107,000	17,388	16	34,000	47	3,664	27	73,000	13,724	19
5	North Jct. Rte. 138, Route 138 Freeway Interchange	82.1	B	70,000	20,300	29	21,500	44	7,164	55	48,500	13,136	27
5	North Jct. Rte. 138, Route 138 Freeway Interchange	82.1	A	74,000	18,441	25	23,000	45	4,671	34	51,000	13,770	27
5	Los Angeles/Kern County Line	88.6	O	75,000	18,968	25	24,000	47	2,138	13	51,000	16,830	33
14	Santa Clarita, Sand Canyon Road Interchange	33.4	A	106,000	6,148	6	27,000	34	1,566	34	79,000	4,582	6
14	Ward Road Interchange	46.8	B	102,000	4,896	5	26,000	34	1,248	34	76,000	3,648	5
14	Angeles Forest Highway Interchange	54.5	B	103,000	6,005	6	23,000	29	2,325	63	80,000	3,680	5
14	Palmdale, South Jct. Rte. 138, Palmdale	59.8	B	84,000	5,267	6	23,000	38	1,912	57	61,000	3,355	6
14	Palmdale, South Jct. Rte. 138, Palmdale	59.8	A	94,000	4,277	5	27,000	40	592	16	67,000	3,685	6
14	North Jct. Rte. 138; Avenue D Interchange	74.0	B	37,000	2,294	6	9,000	32	-562	20	28,000	2,856	10
14	North Jct. Rte. 138; Avenue D Interchange	74.0	A	35,000	2,170	6	8,500	32	-639	23	26,500	2,809	11
138	Jct. Rte. 5, Golden State Freeway Interchange	0.0	A	4,250	874	21	1,000	31	549	9	3,250	325	10
138	Jct. Rte. 14 North, Antelope Valley Freeway	36.9	B	4,650	656	14	1,100	31	53	9	3,550	603	17
138	Palmdale, Jct. Rte. 14 South, Antelope Valley Freeway	43.4	A	36,500	1,967	5	7,000	24	1,141	8	29,500	826	3
138	Palmdale, 47th Street East	48.6	B	23,700	1,052	4	5,200	28	-39	-4	18,500	1,091	6
138	Palmdale, Pearlblossom Highway/Avenue T	51.4	A	21,200	1,980	9	2,700	15	-832	30	18,500	2,812	15
138	Palmdale, Pearlblossom Highway/Avenue T	51.4	B	19,100	1,356	7	1,600	9	-1,094	45	17,500	2,450	14
138	Jct. Rte. 18, Palmdale Road	69.3	A	10,500	1,000	10	-100	-1	364	57	10,600	636	6
138	Jct. Rte. 18, Palmdale Road	69.3	B	18,100	1,736	10	11,200	2	1,412	6	6,900	324	5
138	Los Angeles/San Bernardino County Line	75.0	O	11,500	950	8	5,000	77	-187	16	6,500	1,137	17
TOTAL				1,309,500	154,594			36		22	959,800	127,088	

Source: CalTrans Traffic Data Branch

Although implementation has been scaled back in recent years, the Los Angeles County Highway Plan shows the intended improvements to the highway system in the County (Map 7-1). In addition, the Los Angeles County Metropolitan Transportation Authority (Metro) has recommended several improvements in its Short Range Transportation Plan for Los Angeles County (SRTP, 2003), to be implemented by 2009. These include the following:

- *I-5/SR-14 Carpool Lane Direct Connector*: This project is authorized for design work during Fiscal Years 2005-2009, but construction has been deferred until at least 2009 due to loss of State funding.
- *SR-14/Avenue H Interchange Improvements*: Metro has awarded partial funding for this project.
- *Avenue P Traffic Signal Interconnect*: Metro has awarded partial funding for this signal synchronization project.
- *North County/Antelope Valley Traffic Improvement*: Metro has awarded partial funding for this signal synchronization project.
- *SR-14 Carpool Lane (Escondido Canyon Road to Pearblossom Highway)*: Metro has recommended this project for future consideration.
- *SR-138 Street Widening (Longview Road to SR-18, to 4 lanes)*: Metro has recommended this project for future consideration.
- *Avenue S Street Widening (SR-138 to SR-14, to 4 lanes)*: Metro has recommended this project for future consideration.

With the improvements recommended in the 2003 Plan, Metro forecasts the speed of traffic on the SR-14 to average 20 mph during the morning rush hour (AM Peak) in 2009. This compares to an average of 36 mph in 2001. I-5 speeds are forecast to average 31 mph, compared with 39 mph in 2001. The average freeway speed for the County in 2009 is forecast to be 37 mph, compared with 41 mph in 2001. These forecasted speeds represent marginal improvements over the baseline (No Build) case without the recommended improvement measures.

TABLE 7-2: Average Freeway Speeds (mph, AM Peak)

<i>PORTION</i>	<i>2001</i>	<i>2009 NO BUILD</i>	<i>2009 RECOMMENDED PLAN</i>
SR-14	36	20	20
I-5	39	29	31
North LA *	49	32	34
All LA County	41	33	37

Source: SRTP (2003)

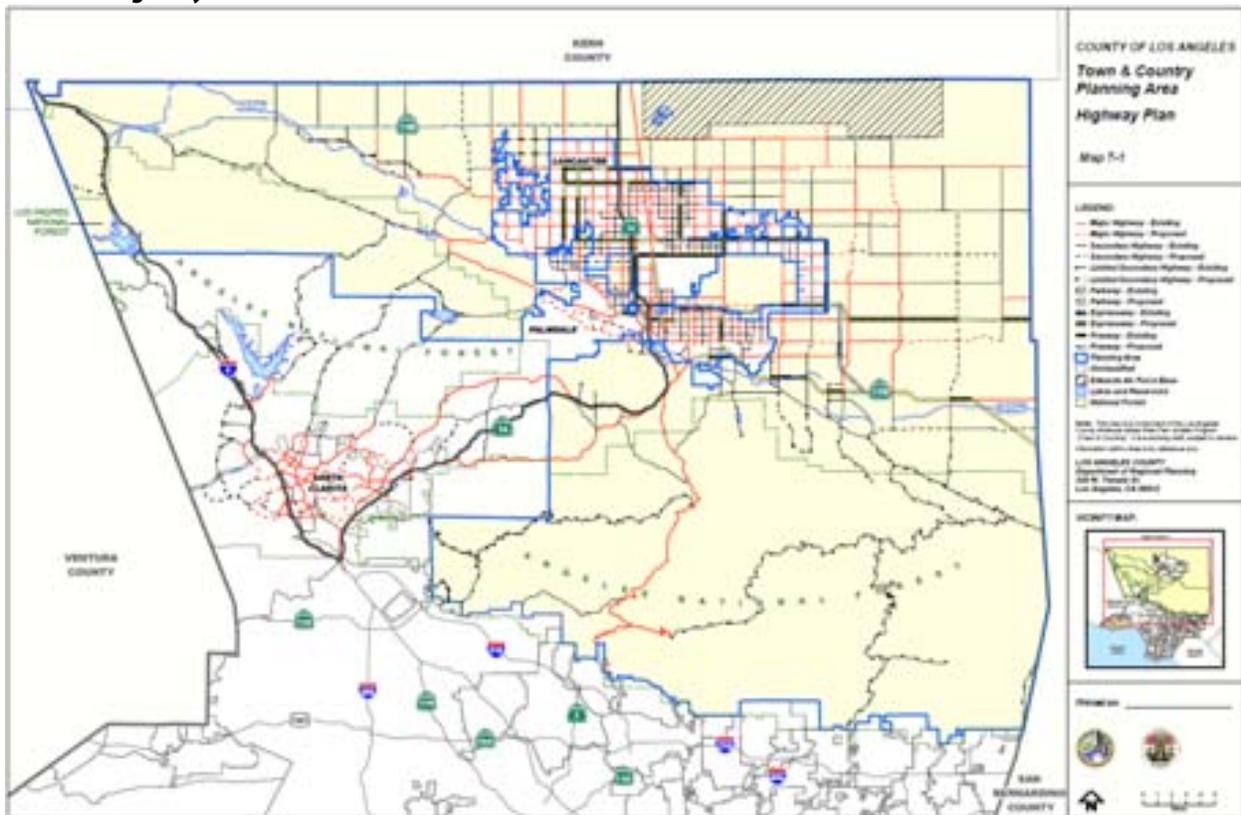
In order to balance transportation improvements with protection of scenic resources, Los Angeles County has created and maintains a Scenic Highway Plan. This Scenic Highway Plan identifies road segments which are eligible for designation as scenic routes under the State

Scenic Highway Program. Formal designation is a process which typically begins in the State Legislature. At present, the Angeles Crest Highway is the only route in the Planning Area which has the State designation.

High Desert Corridor Proposal

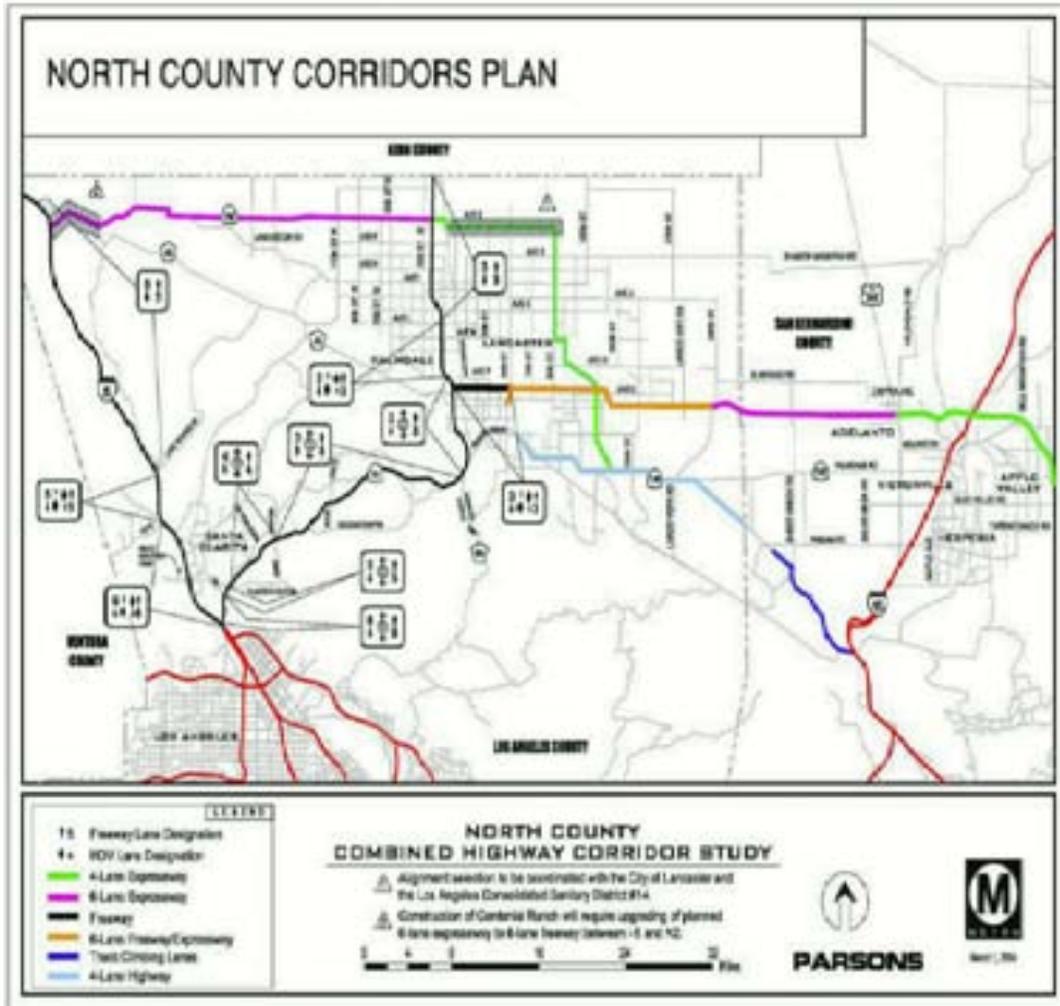
The High Desert Corridor is a proposed freeway connecting State Route 14 near Palmdale to Interstate 15 near Victorville. The portion between SR-14 and 50th Street East (9 miles) is currently in the Program Analysis and Evaluation phase, expected to be completed in 2010. Likewise, San Bernardino has a segment, from SR-18 east of Apple Valley to US-395 (20 miles), in the Program Analysis and Evaluation phase, with construction beginning in 2012. The remaining portion (32 miles) connecting these segments has been studied by CalTrans (report December 2006)¹.

MAP 7-1: Highway Plan



¹ California High Desert Corridor Joint Powers of Authority website: http://www.sbcounty.gov/dpw/transportation/high_desert_corridor.asp (Powerpoint Presentation "High Desert Corridor"). Accessed February 2009.

FIGURE 7-1: North County Corridors Plan



Public Bus Transit

The Antelope Valley Transit Authority (AVTA) was created in 1992 by Los Angeles County and the Cities of Lancaster and Palmdale to provide transit services to the communities of the Antelope Valley. AVTA currently operates three services: Local fixed-route buses (including special school routes), On-demand “Dial-A-Ride” paratransit vans (including disabled passenger service), and longer-distance commuter coach service.

TABLE 7-3: Antelope Valley Transit Authority Ridership and Productivity

Service	Ridership (Boardings)			Productivity (Boardings per Revenue Hour)		
	FY2004	FY2003	Change	FY2004	FY2003	Change
Local-Fixed-Route	1,519,684	1,529,199	-0.6%	22.0	25.2	-12.7%
Commuter	179,126	171,171	+4.6%	13.5	14.7	-8.1%
Special-Routes	42,692	61,698	-30.8%	25.8	34.9	-26.1%
Dial-a-Ride	20,989	22,831	-8.1%	1.9	2.3	-17.5%
ADA-compliant	13,689	10,527	+30.0%	2.8	1.9	+46.6%
All-AVTA Service	1,776,180	1,795,426	-1.1%	17.7	20.0	-11.4%
All-AVTA, Annualized	2,714,407	2,743,819	-1.1%	17.7	20.0	-11.4%

Source: AVTA Long Range Plan (April 2005)

AVTA routes directly serving unincorporated areas include four local routes, two special routes, and three commuter routes connecting the Antelope Valley to other areas. Ridership and service issues are summarized below.

TABLE 7-4: Antelope Valley Transit Authority Ridership—Unincorporated Communities

Type of Service	Route	Weekday Ridership	Riders per Revenue Hour	Rank in Category
Local	R6 (Littlerock)	291	16	5/9
	R7 (Quartz Hill)	166	11	2/9
	R9 (Lake LA)	291	11	3/9
	Lake LA Shuttle	46	3	9/9
Special	R95 (Quartz Hill HS)	83	26	3/4
	R96 (Littlerock HS)	105	39	1/4
Commuter	R785 (Los Angeles)	486	14	1/4
	R786 (West LA)	117	14	1/4
	R787 (San Fernando)	457	13	3/4

Source: AVTA Long Range Plan (April 2005)

AVTA has recommended changes in its 2005 Long Range Plan, including:²

- Combining Route 5 (Avenue L) with Route 7
- Extending and adding trips to Route 95
- Converting Route 6 to a flexible route (Dial-a-Ride)
- Extending Route 1 (Tenth Street West) to Charlie Brown Farms
- Adding and modifying several commuter routes
- Increasing peak frequency on the Lake LA Shuttle from 60 to 30 minutes

Rail Service

Affordable housing in the Antelope Valley has been a significant attractor to the area for the past several decades. With relatively inexpensive vehicle fuel prices and reasonably uncrowded freeways, residents found their commutes to jobs in the Santa Clarita Valley and the metropolitan Los Angeles area acceptable. In recent years, though, the average freeway speeds have decreased and fuel prices have risen significantly. Car pools have become popular, but the need for mass public transit has resulted in not only increased bus services but the development of rail commuter services as well.



Metrolink train

Metrolink is Southern California's regional commuter rail service, created in 1991 as a Joint Powers Authority by the Los Angeles County Metropolitan Transportation Authority (Metro) and the Orange, San Bernardino and Ventura County governments. Operations began in October 1992 and regular service is currently provided to 54 stations on seven lines.³

Metrolink serves the Planning Area through the Lancaster, Palmdale and Vincent Grade/Acton stations. The latest ridership statistics from Metrolink (3rd Quarter of 2008) indicate that average weekday boardings on the Antelope Valley Line were 13 percent higher than the same period in 2007; Use of the AV Line is overwhelmingly for business purposes, with surveys showing 83 percent of trips in 2007 for commuting to work or business trips versus only 17 percent for non-business purposes. The average length of a trip (2007) was 42 miles, translating to approximately one hour.

² Antelope Valley Transit Authority, *AVTA Long Range Plan*, 2005.

³ Metrolinktrains.com, 2008.

TABLE 7-5: Metrolink Antelope Valley Line Statistics (3rd Quarter 2008)

	SEPTEMBER 2007	SEPTEMBER 2008	CHANGE
Stations	10	11	+1
Route Miles	76.6	76.6	--
Trains Operated/Weekday	24	24	--
Trains Operated/Saturday	12	12	--
Trains Operated/Sunday	6	6	--
Average Weekday Riders	7,143	8,089	+13%
Average Saturday Riders	1,824	2,628	+44%
Average Sunday Riders	541	1,292	+139%
Average Speed (mph)	41	41	--

Source: Metrolink Fact Sheet (11/08)

The three stations in the Antelope Valley are Lancaster, Palmdale and Vincent Grade/Acton. Boardings at these stations are as follows:

TABLE 7-6: Antelope Valley Line Station Data (2007)

	LANCASTER	PALMDALE	VINCENT GRADE/ACTON
Avg Weekday Boardings	454	359	231
Distance to LA Union Station	72	65	56
Parking Spaces	140	500	240
Weekday Fare (One-Way)	\$10.50	\$10.25	\$10.00
Comparable Driving Cost (AAA Estimate)	\$37.58	\$33.93	\$29.23
Owner/Operator	City of Lancaster	City of Palmdale	LA County Public Works

Source: Metrolinktrains.com (2/11/08)

In January 2007, Metrolink published a Strategic Assessment document that laid out the projected service scenarios for 2010 through 2030. The forecast is for steady expansion, with the number of trains increasing 159 percent over 2005 levels and ridership growing 282 percent.

TABLE 7-7: Metrolink Antelope Valley Line Service Scenarios 2010-2030

	2006	2010	2015	2020	2030
Weekday Trains	24	24	32	42	46
Increase over 2006	--	0	33%	75%	92%
Boardings	7,191	8,424	14,548	19,334	27,554
Increase over 2006	--	17%	102%	169%	283%

Source: SCRRA Strategic Assessment (1/07)

Proposed Metrolink Improvements

The Metro Short Range Transportation Plan (S RTP, 2003) recommended several improvements for the Metrolink Antelope Valley Line.

- Signal Upgrades and Track Straightening: Metro recommended \$2.3 million in projects to allow for faster train travel (2004).
- Track Curve Straightening: Metro recommended \$2.7 million in projects to allow for faster train travel (2004, delayed to 2010).

California High Speed Rail Proposal

The State of California established the California High-Speed Rail Authority, a joint powers authority entity, in 1996 for the purpose of planning a statewide high speed train system. The current proposal calls for a 800-mile system, reaching from San Diego through Los Angeles to Sacramento and San Francisco, with trains reaching speeds over 200 mph. Station locations proposed include the Palmdale Transportation Center. Early planning is underway at the time of this writing, aiming at a functioning train system in place around 2020.

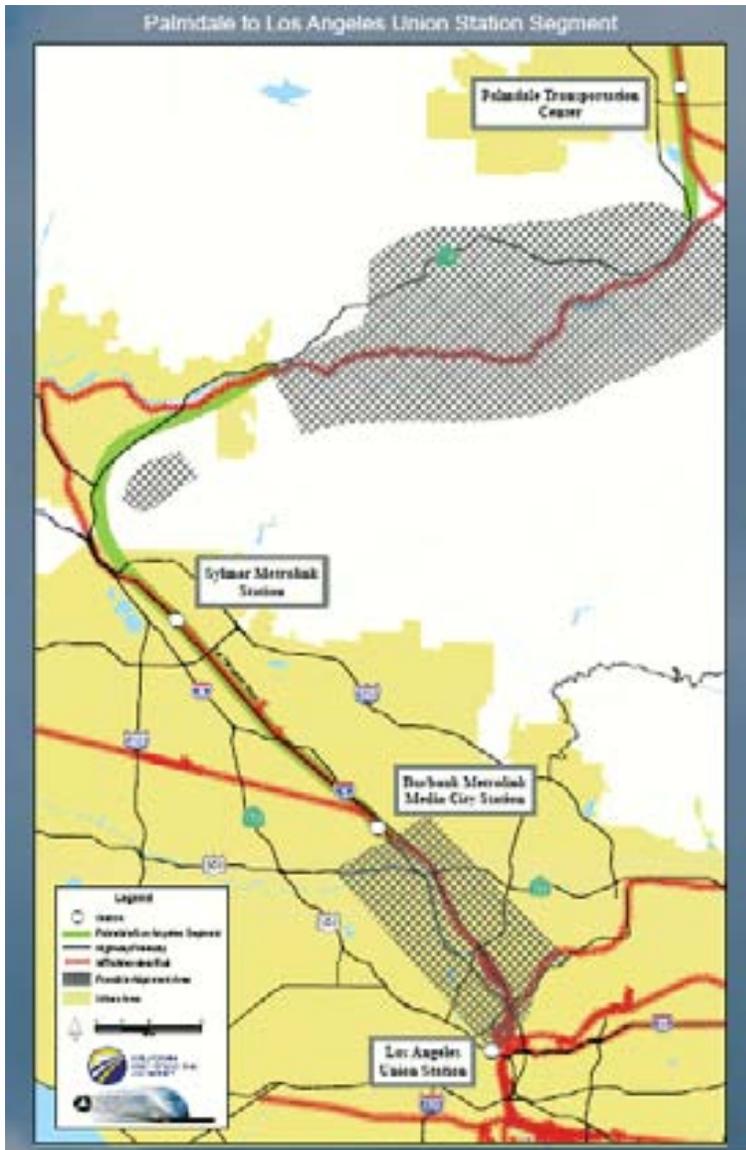


*Proposed high speed rail
Source: Railway Technology*

During the November 5, 2008 elections, California voters approved Proposition 1A to issue \$9.95 billion in bonds to establish the high-speed train. At least 90% of the bond funds must be used for capital costs and construction of the high-speed train system and limits to 10% or less the amount of bond funds that can be used for environmental studies, planning, preliminary engineering, and right of way acquisition. It will prohibit the funding of maintenance or operating costs from bond funds.

Proposed route and service information is below:

FIGURE 7-2: Proposed California High Speed Rail – Palmdale to Los Angeles Segment



Source: U.S. Department of Transportation – Federal Railroad Administration

Rail Freight Service

Union Pacific Railroad lines serve much of the United States, including Southern California. While there are no major rail terminal facilities in the Antelope Valley, shipments can be processed—both sent and received—through one of the Union Pacific facilities serving the greater Los Angeles area.

Air Service

Palmdale Regional Airport

The Palmdale Regional Airport has been operated by the City of Los Angeles' Los Angeles World Airports (LAWA) since it opened in 1971 on the premises of the US Air Force Plant 42 facility near Sierra Highway and Avenue P. Commercial service has been intermittent due to low demand, but future airport expansion is possible.



Palmdale Regional Airport
Source: Los Angeles World Airports

At this writing, there is no commercial service from the airport, although since 1971 there have been seven carriers to offer flights—the most recent being United Express, with jet flights to San Francisco International Airport where travelers could connect to dozens of flights serving domestic and international destinations.

In November 2008, the City of Palmdale demonstrated interest in assuming operations at Palmdale Regional Airport, hoping to attract an airline that will offer enough flight destinations to make the airport convenient for more travelers than in the past.

General William J. Fox Airfield

The largest general aviation airport in the Antelope Valley is Fox Field. The airfield covers 1,039 acres in Lancaster. As of 2003, there were 197 aircrafts based at Fox, of which 92 percent were propeller-driven, one percent US Military, and two percent US Forest Service craft. Average traffic in 2002-03 was 227 flights per day. This is a high volume for general aviation airfields, and is forecast to grow to 542 flights per day in 20 years.⁴



Fox Field

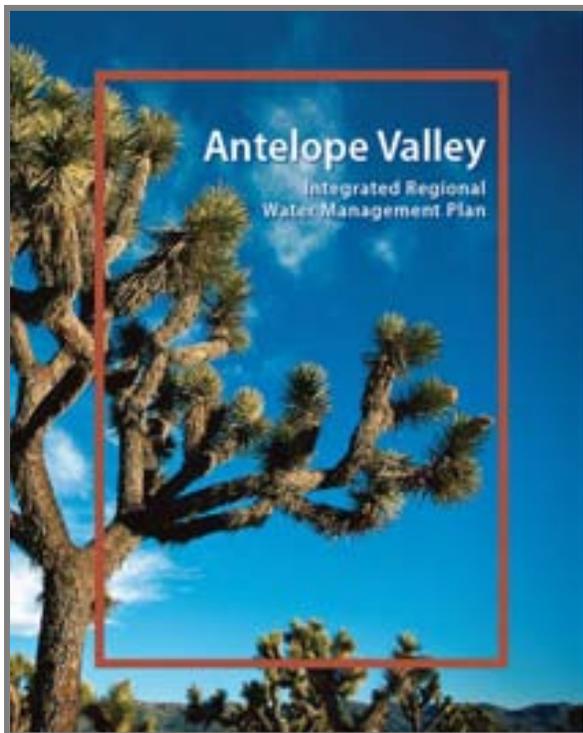
While convenient access to airfields is desirable, their locations and associated air traffic patterns create noise issues that may impact other land uses—particularly residential and public facilities such as schools and hospitals. The following Chapter 8 contains a section discussing noise from all sources. Included is a map of airplane community noise equivalent level (CNEL) contours for the Antelope Valley's two airports.

⁴ LA County, Department of Regional Planning, *General William J. Fox Airfield Land Use Compatibility Plan*, December 2004.

WATER RESOURCES

Antelope Valley Integrated Regional Water Management Plan

Water management plans allow for thorough planning of water resources to ensure the health and well being of current and future residents. Through Proposition 50, which designated state funds for a variety of water projects, the Antelope Valley Integrated Regional Water Management Plan (AV IRWMP) has developed a vision and direction for sustainable management of water resources in the Antelope Valley through the year 2035. Through a collaborative effort between multiple water agencies, local jurisdictions, stakeholder groups, and citizen representatives, the AV IRWMP was developed to identify regional objectives and priorities, water management strategies, and implementation.



The AV IRWMP aims to achieve numerous objectives to address the multitude of complex and daunting challenges in supplying water and ensuring its quality. Some of those objectives include:

- Provide reliable water supply to meeting demand until 2035 by providing adequate reserves, reducing the mismatch of expected supply and demand (by providing new water supply and reducing demand);
- Stabilize groundwater levels at current conditions by managing groundwater levels so that the change in groundwater level is greater than or equal to zero;
- Maximize beneficial use of recycled water by increasing infrastructure and establish policies to use recycled water.

Twenty different water management strategies were identified and grouped into one of five regional and broad-based water management strategy areas: water supply management, water quality management, flood management, environmental resource management, and land use management. These strategies fit into one of three categories of implementation:

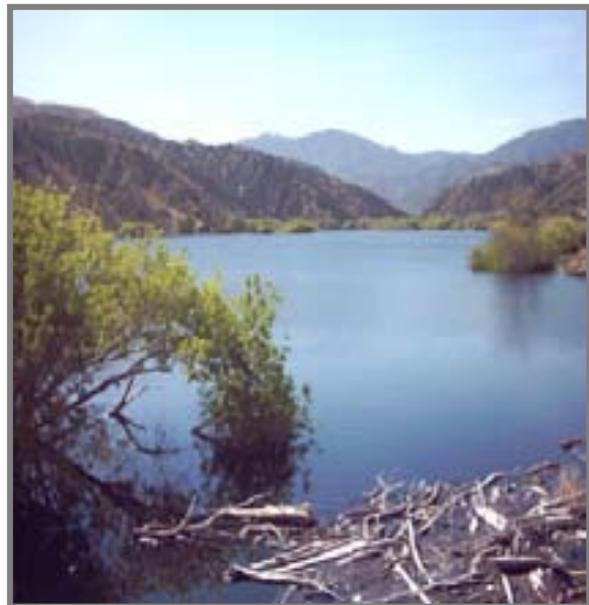
- 1) Strategies that are currently being utilized by agencies and organizations on an ongoing basis which include;
- 2) Strategies now being implemented; and
- 3) Strategies that are planned for the future.

The AV IRWMP, in which 11 public agencies have joined together to implement, outlines monitoring guidelines and sets forth procedures for measuring its success, benefits, and impacts. The implementation framework consists of the identification of capital improvement projects, financial planning for construction, operation, and maintenance of such projects, and ongoing management of the AV IRWMP for evaluation and updating.

Water Supply

Water comes from two primary sources in the Antelope Valley: 1) naturally occurring water accumulated as surface water or groundwater from rain and snow, and 2) imported surface water collected in northern California and piped down through the State Water Project (SWP).

Surface water is stored in the Littlerock Reservoir (capacity 3,500 acre-feet) and is used for agricultural irrigation and treated for municipal and industrial purposes.



Littlerock Reservoir
Source: Littlerockdam.org

Groundwater is a vital resource to the Antelope Valley, as it provides a large percentage of water. Prior to 1972 groundwater provided more than 90 percent of the total water supply. Since 1972 it has provided between 50 and 90 percent of the total water supply in the Antelope Valley. Groundwater is stored in the Antelope Valley Groundwater Basin, a large basin comprised of a principal aquifer. The total storage capacity of the Antelope Valley Groundwater Basin has been reported at 68 million acre-feet with recharge rates of 31,200 to 80,400 acre-feet per year through deep percolation of precipitation and runoff from surrounding mountains and hills.



State Water Project

The Antelope Valley-East Kern Water Agency distributes imported surface water delivered from the Sacramento River Delta via the SWP to the Antelope Valley. The SWP is contracted to deliver approximately 160,000 acre-feet per year (AFY) of water to the Antelope Valley; however, this is a maximum figure, and the proportion delivered in any given year (reliability) varies. Reliability in the past has hovered around 75 percent, but recent legal

actions related to endangered fish species in the Sacramento River Delta have reduced this number to less than 70 percent for an interim period until a new long term allocation is decided (possibly in mid-2009) to help protect the Delta's species habitat.

Water Supply Management

A paramount challenge in the Antelope Valley is that demand for water exceeds available supplies. Several issues pose challenges to the supply of water:

- **Regional reliance on imported water:** The Antelope Valley currently depends on the SWP for 65 percent of its total water supply in an average year. This supply is variable and fluctuates depending on precipitation, regulations, legislative restrictions, and operational conditions.
- **Groundwater use is not managed:** Groundwater in the Antelope Valley Groundwater Basin is currently unmanaged which can lead to overdrafting and reduce the long-term viability of the groundwater supply.
- **Existing facilities have limitations:** Water supply agencies need to modify existing infrastructure to accommodate an increase in the delivery of water supply.
- **Land subsidence effects:** Land subsidence causes changes in natural drainage patterns, degradation of groundwater quality, and permanent reduction in groundwater storage capacity.
- **Global warming effects:** Changed hydrological conditions such as a reduction in snow depth, early snow melt, and rise in sea level could affect future planning efforts.

To address these issues, the AV IRWMP plans to develop new water supplies, protect existing water supplies, conserve water, recycle water, research desalination and water transfers, and maintain the current groundwater levels.

Recent legislation has addressed the gap between land use planning and water supply management. Two water supply planning bills, Senate Bill (SB) 221 and SB 610, were enacted to require greater coordination and more extensive data sharing between water suppliers and local land use agencies with regard to large development projects and plans. Under SB 221, proposed projects of over 500 dwelling units must obtain verification from the water system operator prior to construction that it has sufficient water supply to serve the proposed project and all other existing and planned future uses, including agricultural and industrial uses, in its area over a 20-year period. Under SB 610, water supply assessments must be furnished to local governments for inclusion in the California Environmental Quality Act (CEQA) documentation for proposed residential development projects of more than 500 dwelling units.

Water Quality Management

Water quality management in the Antelope Valley region is focused on maintaining and improving existing water quality and preventing future contamination. The groundwater basin

is an undrained, closed basin. When water enters a closed basin, any minerals or chemicals in the water typically accumulate in the basin. Currently, water quality in the Antelope Valley region is excellent within the principal aquifer but degrades toward the northern portion of the dry lake areas. Some portions of the basin contain groundwater with high fluoride, boron, total dissolved solids, and nitrate concentrations. An emerging contaminant of concern is arsenic, which is a naturally occurring inorganic contaminant often found in groundwater and occasionally found in surface water.

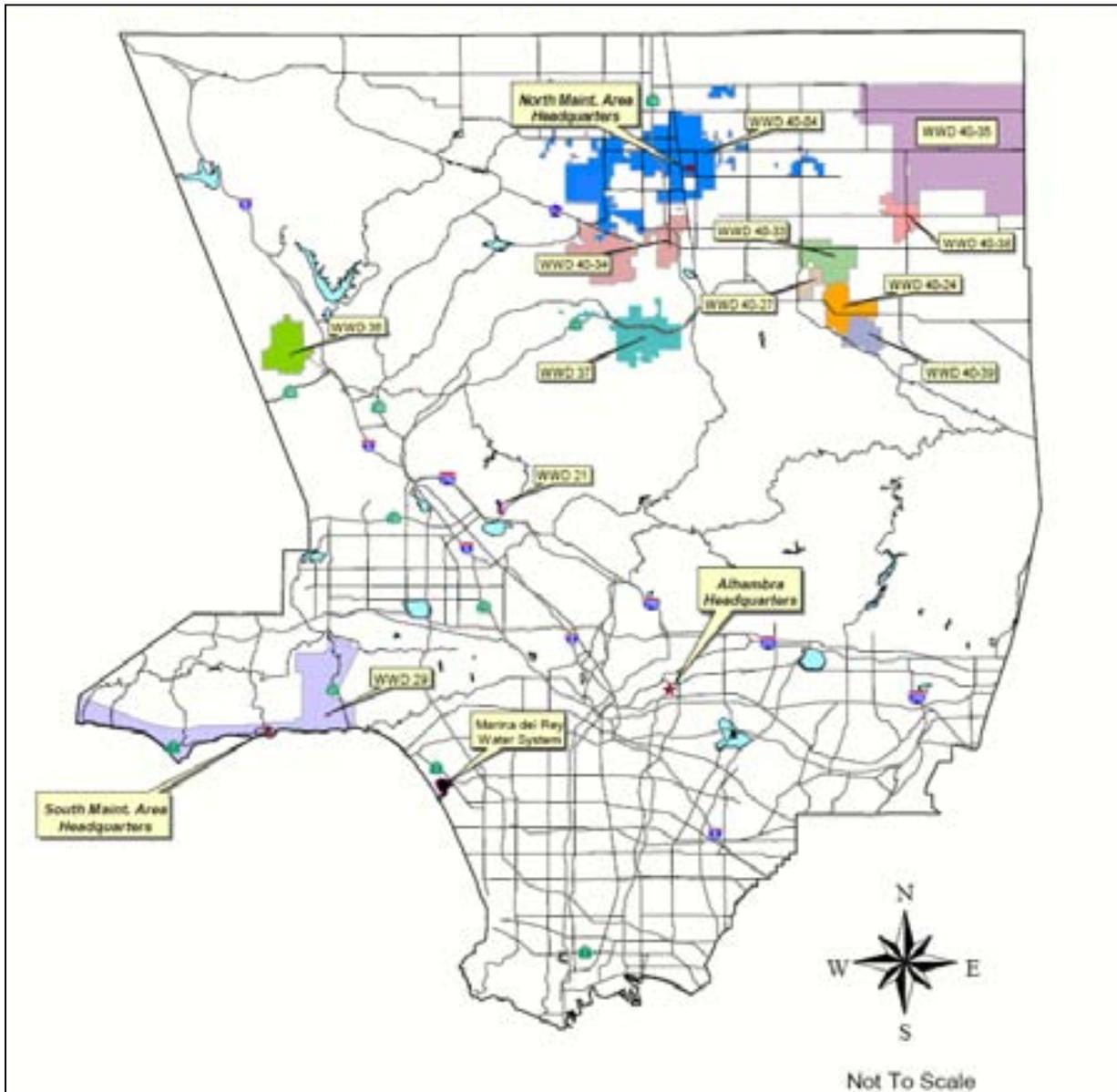
The State Department of Water Resources regulates the quality of SWP water and has provided draft criteria that are still undergoing revision. As of January 2006, the Federal arsenic Maximum Contaminant Level was revised to 10 micrograms per liter. SWP water is treated by PWD's treatment plant for use by PWD and LCID, and by four AVEK facilities (Quartz Hill Water Treatment Plant (WTP), Eastside WTP, Rosamond WTP, and Acton WTP) prior to delivery to the other water purveyors.

Public Purveyors

Water users in the Planning Area are serviced by four public water purveyors: Los Angeles County Waterworks Districts 37 and 40 (LACWWD40), Quartz Hill Water District (QHWD), and Los Angeles County Sanitation Districts (LACSD). LACSD supplies reclaimed water for non-drinking purposes.

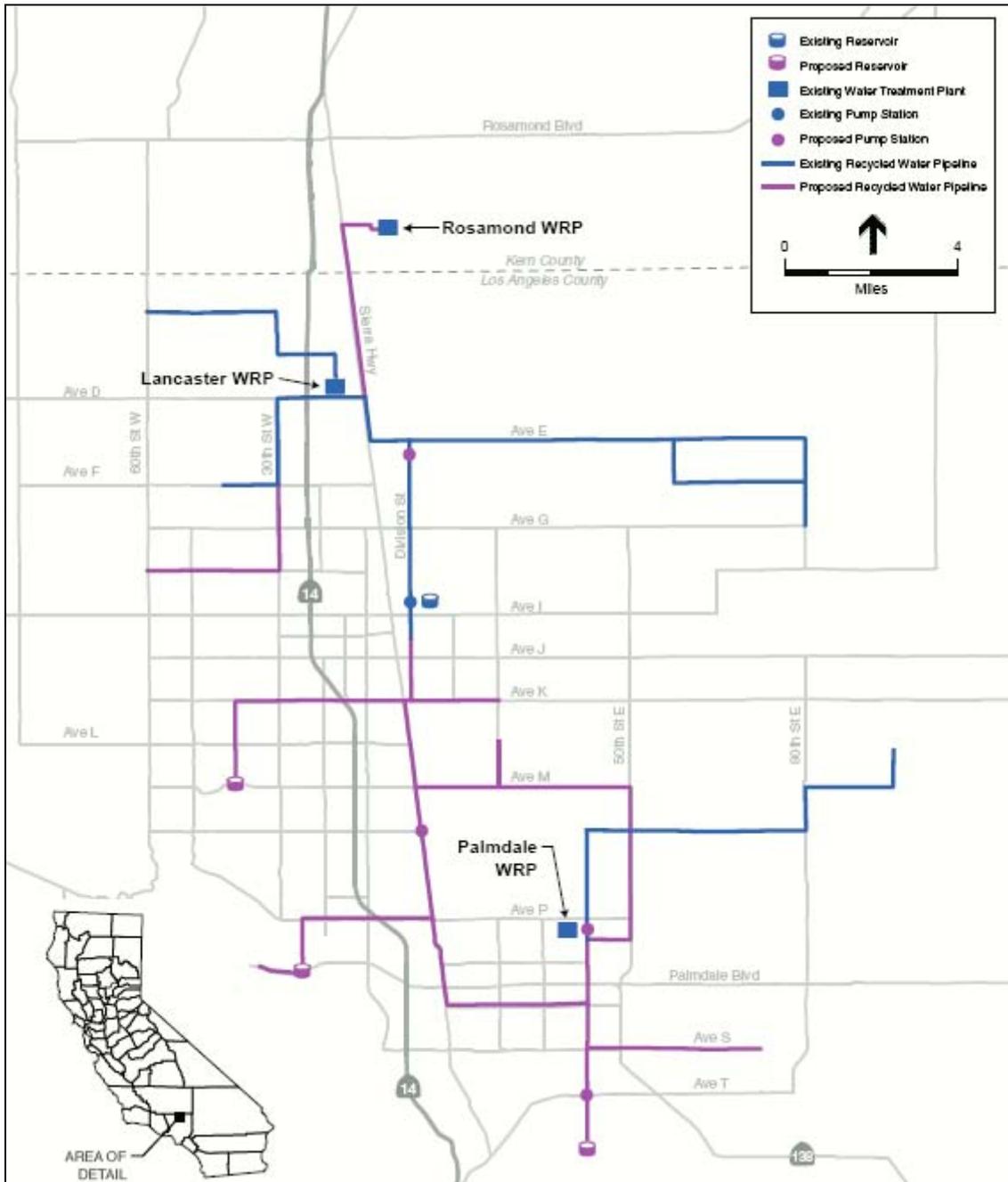
The service areas for the Los Angeles County Districts are depicted on Figure 7-3.

FIGURE 7-3: Los Angeles County Waterworks Districts



All of the purveyors have strategies in place to increase water storage capacity and preserve groundwater levels, while reducing water use to ensure adequate supplies for the future population. However, implementation of water-saving measures must involve other stakeholders, such as municipalities and commercial, industrial and residential water users.

FIGURE 7-4: Existing and Proposed Water Treatment Facilities



Source: Los Angeles County Waterworks District 40 – North LA/Kern County Regional Recycled Water Master Plan

PUBLIC SERVICES

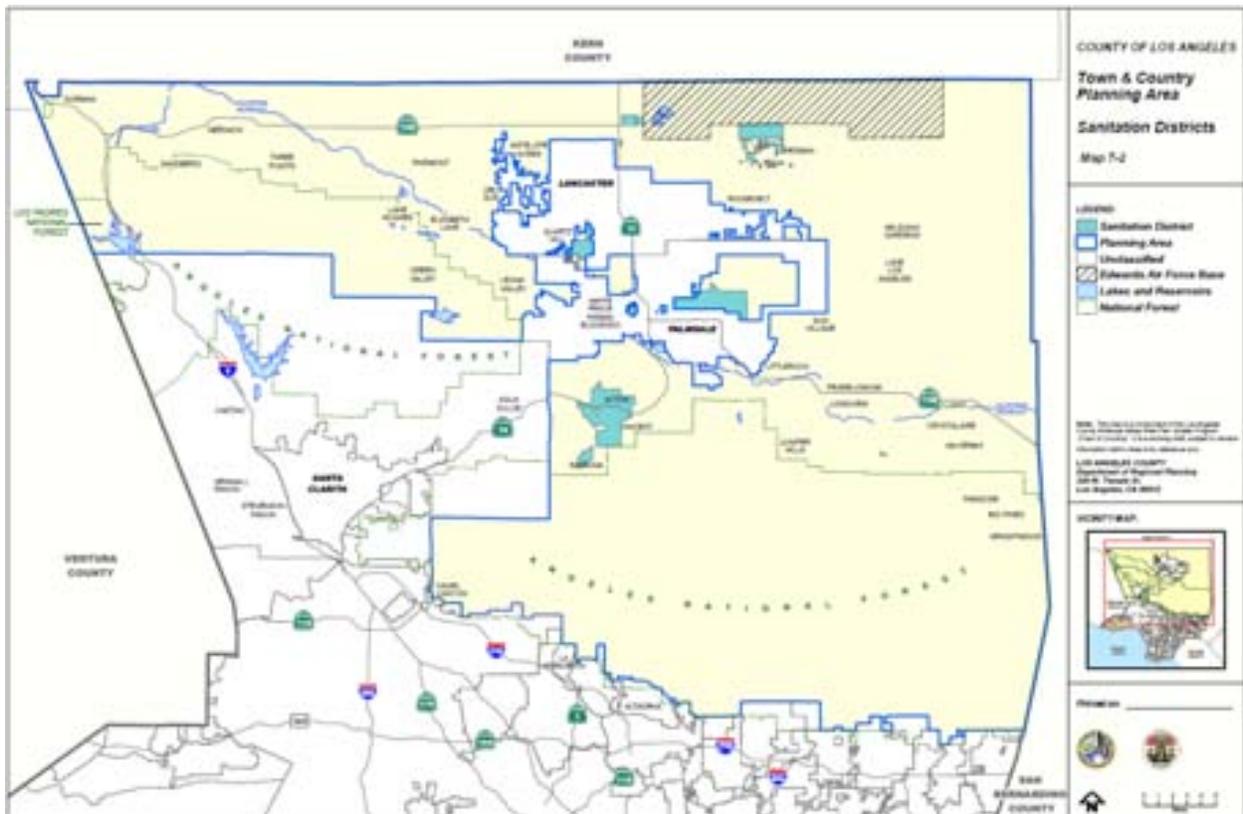
Sewer Service

Sewage Collection and Treatment

Los Angeles County Sanitation Districts (LACSD) provide sanitary sewer services for the Antelope Valley. Trunk sewer lines are constructed, operated and maintained by the Sanitation Districts. Local sewer lines within the cities of Lancaster and Palmdale are owned by the Cities, while the County owns the majority of lines in unincorporated territory. Most local lines are maintained by the Los Angeles County Consolidated Sewer Maintenance District, which contracts its services to the City governments.

LACSD also operates two wastewater treatment facilities in the Antelope Valley, the Lancaster (District 14) and Palmdale (District 20) Water Reclamation Plants.

MAP 7-2: Sanitation Districts



Reclaimed Water

Reclaimed water (also called recycled water) is a major resource, and its management and disposal a major challenge for water treatment plant operators. While reclaimed water is currently not widely used in the Planning Area, Los Angeles County Waterworks District 40 is leading an effort to develop a Recycled Water Facilities Plan for the Antelope Valley. In such plan, water would be treated at three existing water treatment facilities that serve the Antelope Valley. Construction of a distribution system to supply reclaimed water in the Antelope Valley, replacing potable water for use in irrigation and industrial processes (see Figure 7-4), is in the planning stages.⁵ Additional pump stations, storage reservoirs and pipelines are proposed to facilitate the distribution of the recycled water for use in irrigation and industrial processes.

Agricultural irrigation is a major use of reclaimed water, and the facilities in the Antelope Valley have contracts to supply reclaimed water to agricultural users. With scheduled expansion of plant capacity in the near future, these contracts must also be expanded (see acreages in Table 7-9).

Municipal reuse usually refers to municipalities using reclaimed water for irrigation of landscaped areas within public facilities and rights-of-way. Although providing obvious public benefits, legal issues and speed of implementation constrain this method.

Injection below ground is another method for disposing of reclaimed water. This method has the added advantages of recharging the water table and preventing surface deposits of excess minerals which must be managed with surface spreading operations. However, digging of construction wells and pumping costs are added constraints for this method.

Planned Improvements

In order to accommodate projected continuing population growth in the Planning Area, the Sanitation Districts have prepared plans for expansion of both WRPs. These plans are outlined in the LWRP 2020 and PWRP 2025 plans, published by the Districts and summarized below. Each plan represents capital investments of around \$200 million.

⁵ Los Angeles County, Department of Public Works, 2005 Draft Integrated Urban Water Management Plan, 2005.

TABLE 7-8: Water Reclamation Plant Capacities (mgd: Million Gallons per Day)

	LANCASTER WRP		PALMDALE WRP	
	2002	2020	2004	2025
Build Year	1959	2014	1953	2013
Population Served	160,000	252,000	150,000	225,000
Trunk Length	64 miles		40 miles	
Average Flow (actual)	12.8 mgd	--	9.4 mgd	--
Average Flow Capacity	16 mgd	26 mgd	15 mgd	22.4 mgd
Tertiary Filters	0	7	0	8
Agricultural Reuse Area	680 ac	4,650 ac	2,680 ac	5,140 ac
Municipal Reuse		1.5 mgd summer (0.5 mgd winter)		
Capital Cost (Estimate)	\$199,914,000		\$271,571,000	

Sources: LWRP 2020 Plan and EIR (May 2004), PWRP 2025 Plan and EIR (September 2005)

Electrical Service

Southern California Edison (SCE) is the only electricity provider in the Antelope Valley. While the Los Angeles Department of Water and Power has transmission lines that traverse the area, they do not serve the area; their transmission grids are not interconnected with those of SCE.

SCE is responsible for the cost of serving new development in the broad sense where it comes to transmission, substations and circuitry. The agency anticipates future growth and demand, and builds the costs of service expansion into their rates. Some costs are the responsibility of the developer and/or the jurisdiction, however. Streetlights are generally paid for by the developer as is the cost associated with undergrounding wire. SCE, for the most part, has an above-ground system and, therefore, the expense of locating distribution underground is passed on to the jurisdiction or the customer. Undergrounding transmission is not always possible, however, particularly in more rugged terrain; the costs and environmental impacts can be significant.

Solid Waste Facilities

The disposal of solid waste is a major factor in planning future growth in the Antelope Valley. The Antelope Valley has two large landfills; however, these are used by residents of other parts of the County as well.

TABLE 7-9: Permitted Landfill Capacity

LANDFILL	2006 DISPOSAL RATE (TONS/DAY)	REMAINING CAPACITY (MILLION TONS)	ESTIMATED REMAINING LIFE (YEARS)
Antelope Valley (Palmdale)	979	9.2	21 (based on 1,400 tons per day, 312 days per year)
Lancaster	1,243	13.5	25 (based on 1,700 tons per day, 312 days per year)
Antelope Valley Total	2,222	22.7	--

Source: LA County Department of Public Works Integrated Waste Management Plan Annual Report (2006)

Some waste is diverted to facilities other than landfills. In 2006, the County (all jurisdictions) diverted an average of 1,700 tons per day to Waste-to-Energy facilities. Waste is also transported to landfills outside of the County. In 2005, this amount was 5,700 tons per day. Countywide, the disposal of solid waste is as follows:

TABLE 7-10: Countywide Solid Waste Disposal

DESTINATION	TONS/YEAR (MILLIONS)	TONS/DAY
In-County Landfills	9.6	30,700
Waste-to-Energy Facilities	0.5	1,700
Out-of-County Landfills	1.8	5,700
Total	11.9	38,100

Source: LACDPW Integrated Waste Management Plan Annual Report (2006)

Law Enforcement

The Los Angeles County Department of Sheriff Services provides for law enforcement throughout the entire Antelope Valley, including the cities of Palmdale and Lancaster, under contract services agreements. The Antelope Valley is served from two stations, one in Lancaster and one in Palmdale.

Lancaster Station: 501 W. Lancaster Boulevard

Station personnel cover an area of more than 600 square miles, including the contract city of Lancaster, and the communities of Lake Los Angeles, Quartz Hill, and Antelope Acres.

Palmdale Station: 750 E. Avenue Q

Palmdale Station provides police service for the contract city of Palmdale as well as 700 square miles of the Planning Area from the Wrightwood ski area to Lake Hughes.

Fire Protection

The Antelope Valley receives fire protection services from the Los Angeles County Fire Department (LACFD). The LACFD's Call Firefighter Program has been an integral part of its emergency services delivery system, servicing the rural and remote areas of the County. The LACFD currently employs about 100 Call Firefighters (CFF).⁶ These individuals staff nine engine companies assigned to four battalions in three separate field divisions. Call Firefighters operate as first responders and are under the supervision and direction of Fire Captains at the nearest fully staffed Fire Station.

Currently there are two battalions with 21 fire stations located throughout the Antelope Valley:

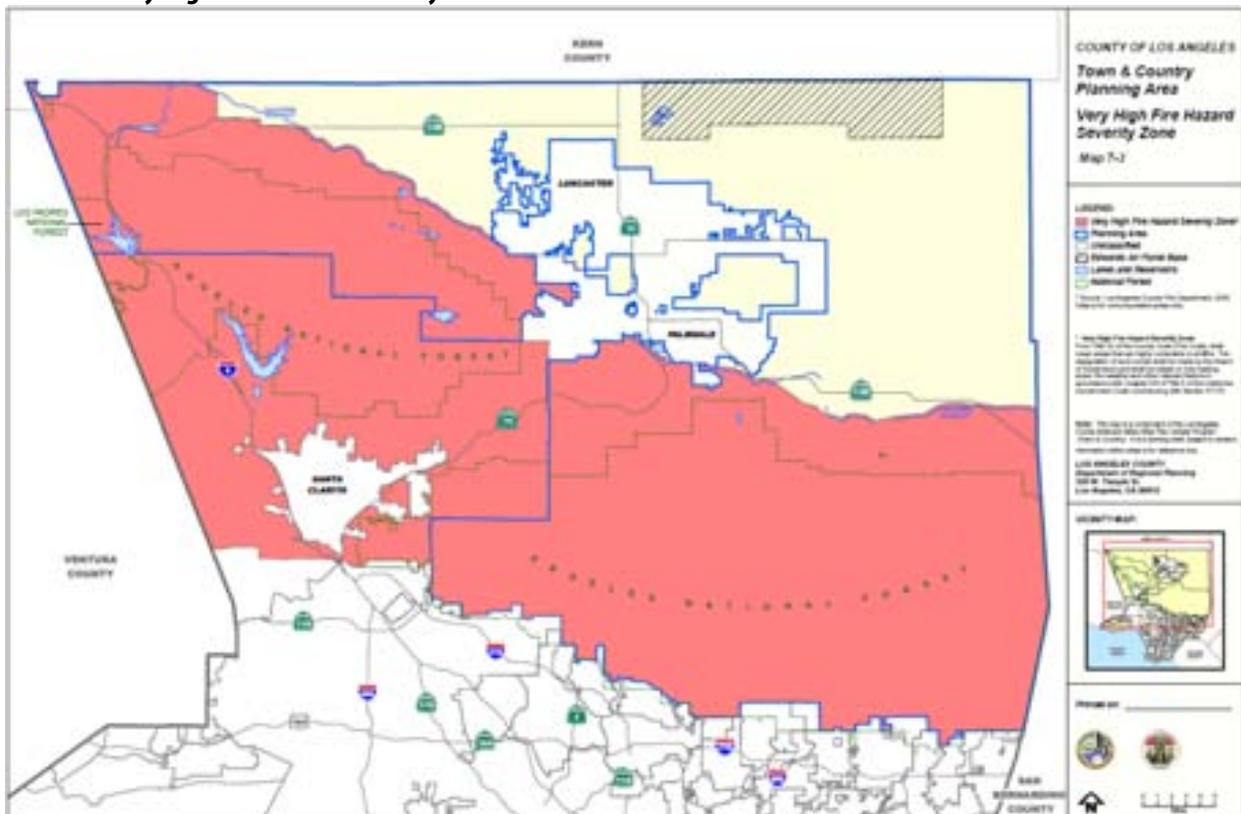
TABLE 7-11: Antelope Valley Fire Stations			
<i>BATTALION 11</i>		<i>BATTALION 17</i>	
FIRE STATION #33 - HDQTRS	44947 DATE AVE LANCASTER, 93534	FIRE STATION #24 - HDQTRS	1050 W AVENUE P PALMDALE, 93550
FIRE STATION #78 (CFF)	17021 N ELIZABETH LAKE RD PALMDALE, 93550	FIRE STATION #37	38318 E 9TH ST EAST PALMDALE, 93550
FIRE STATION #84	5030 W AVENUE L-14 QUARTZ HILL, 93536	FIRE STATION #79	33957 LONGVIEW RD PEARBLOSSOM, 93553
FIRE STATION #112 (CFF)	8812 W AVENUE E-8 LANCASTER, 93535	FIRE STATION #80	1533 W SIERRA HWY ACTON, 93510
FIRE STATION #117	44851 30TH ST EAST LANCASTER, 93535	FIRE STATION #81	8710 W SIERRA HWY AGUA DULCE, 91350
FIRE STATION #129	42110 6TH ST WEST LANCASTER, 93534	FIRE STATION #92	8905 E AVENUE U LITTLEROCK, 93535
FIRE STATION #130	44558 40TH ST WEST LANCASTER, 93536	FIRE STATION #93	5624 E AVENUE R PALMDALE, 93550
FIRE STATION #134	43225 N 25TH ST W LANCASTER, 93534	FIRE STATION #114	39939 N 170TH ST EAST PALMDALE, 93550
FIRE STATION #135	1846 EAST AVENUE K-4 LANCASTER, 93535	FIRE STATION #131	2629 E AVENUE S PALMDALE, 93550
FIRE STATION #140 (CFF)	8723 ELIZABETH LAKE RD LEONA VALLEY, 93550	FIRE STATION #136	3650 BOLZ RANCH RD PALMDALE, 93551
FIRE STATION #157 (CFF)	15921 SPUNKY CANYON RD GREEN VALLEY, 91350		

⁶ Los Angeles County Fire Department website: <http://www.fire.lacounty.gov/CallFirefighter/CallFirefighter.asp>. Accessed February 2009.

The Forestry Division of the Los Angeles County Fire Department is responsible for the review of environmental documents related to development and protection of oak tree resources, development of vegetation management plans and proposals, coordination of wildland fire planning, enforcement of the Department’s brush clearance program, and review of fuel modification plans. The Division staffs a Forestry unit in Lake Hughes. At the unit, tree seedlings are provided to the public and advice is shared with local homeowners.

The Planning Area requires fire fighting responses to structural fires and to range fires in largely unpopulated areas. Depending on the type and extent of wildfires, assistance can be recruited as needed. The Forestry Division is tasked with using Geographic Information Systems (GIS) to map wildland fires and provide assessments of limited natural resources. It oversees development and staffs the Department’s Infrared and Fire Map Program. This helicopter-based aerial camera completes simultaneous mapping of the fire perimeter and highlights hot spots near the fire line that could lead to additional fire spread. The following map identifies the portions of the Planning Area that are particularly susceptible to wildfires.

MAP 7-3: Very High Fire Hazard Severity Zone



Forces of nature abound across the face of the Earth. Southern California is notorious for its earthquakes, most notably, but also for its wild range fires, landslides and occasional flooding. As an area—such as the Antelope Valley—becomes more populous, other hazard issues develop, including air quality and noise pollution as well as the generation and need for safe disposition of hazardous materials. This Chapter 8 focuses on those issues that are important when establishing long range planning designs and policies, as well as public improvement programs and services.

DRAINAGE PATTERNS

The Antelope Valley contains numerous creeks and washes that carry highly erodible soils onto the Valley floor, forming large alluvial fans of deposited sediment. These fans develop at the transition from the steep mountain slopes to the gentle Antelope Valley floor and have in many areas come together to form a continuous alluvial fan along the Antelope Valley's southerly edge. The mountain streams meander across the fans in undefined and often changing paths. As a result, much of the Antelope Valley floor is subject to flood hazard during periods of heavy rain or melting snowpack from surrounding mountains. Many areas in the Antelope Valley experience sheet flow during prolonged periods of rainstorms.

Amargosa Creek

Amargosa Creek collects runoff from the Sierra Pelona Mountains and San Andreas Rift Zone at the southwest end of the Antelope Valley. The creek flows easterly, changes direction and then drains northerly through Palmdale and Lancaster, and terminates at Rosamond Dry Lake. The natural course of Amargosa Creek has been altered through man-made channels and detention basins.

Anaverde Creek

Runoff from the Sierra Pelona Mountains is collected by the Anaverde Creek and flows easterly through Anaverde Valley. It flows along the western edge of Palmdale and northerly along Sierra Highway, where the flow is collected and held in a retention basin. Water that overflows the detention basin flows north and merges with the Amargosa Creek.

Big Rock Wash

Big Rock Wash collects runoff from the San Gabriel Mountains in the southern end of the Antelope Valley and flows northerly from Holcomb Ridge to the community of Pearblossom. It continues north until it reaches Rogers Dry Lake.

Little Rock Wash

Little Rock Wash is an ephemeral wash that receives runoff from the San Gabriel Mountains. It flows west of the community of Littlerock through the east side of Palmdale and to Rosamond Dry Lake. The wash is characterized by a well-defined channel in the southern end of the Antelope Valley and becomes less defined as it reaches Rosamond Dry Lake.

Rosamond Dry Lake, Rogers Dry Lake, and Buckhorn Dry Lake

Rosamond Dry Lake covers approximately 21 square miles and is one of three terminal water bodies within the Antelope Valley. Buckhorn Dry Lake is located between Rogers and Rosamond Dry Lakes, encompassing approximately three square miles. Rogers Dry Lake, located further east, is approximately 35 square miles. The lakebeds are usually a dry flat playa and are covered with water only during heavy winter storms. Storm water runoff collected generally evaporates from the surface rather than infiltrating into the groundwater.

FLOODING

Precipitation ranges on average less than 10 inches per year on the Antelope Valley floor to more than 12 inches in the local mountains, although parts of the Angeles National Forest receive much greater rainfall. Floods in the Antelope Valley generally occur in the winter months between November and April. The highest frequency and greatest intensity normally occurs between December and March.

Flooding hazards are directly related to rainfall intensity and duration. The regional topography, type and extent of vegetation coverage, amount of impermeable surfaces, local slope characteristics, and available drainage facilities all factor into the region's ability to divert runoff. Flooding in the Antelope Valley is caused largely by runoff from the San Gabriel and Sierra Pelona Mountains to the south. Following a short period of low-intensity rainfall, deep deposits of permeable sands absorb nearly all runoff by infiltration as it flows out of the San Gabriel Mountains. However,



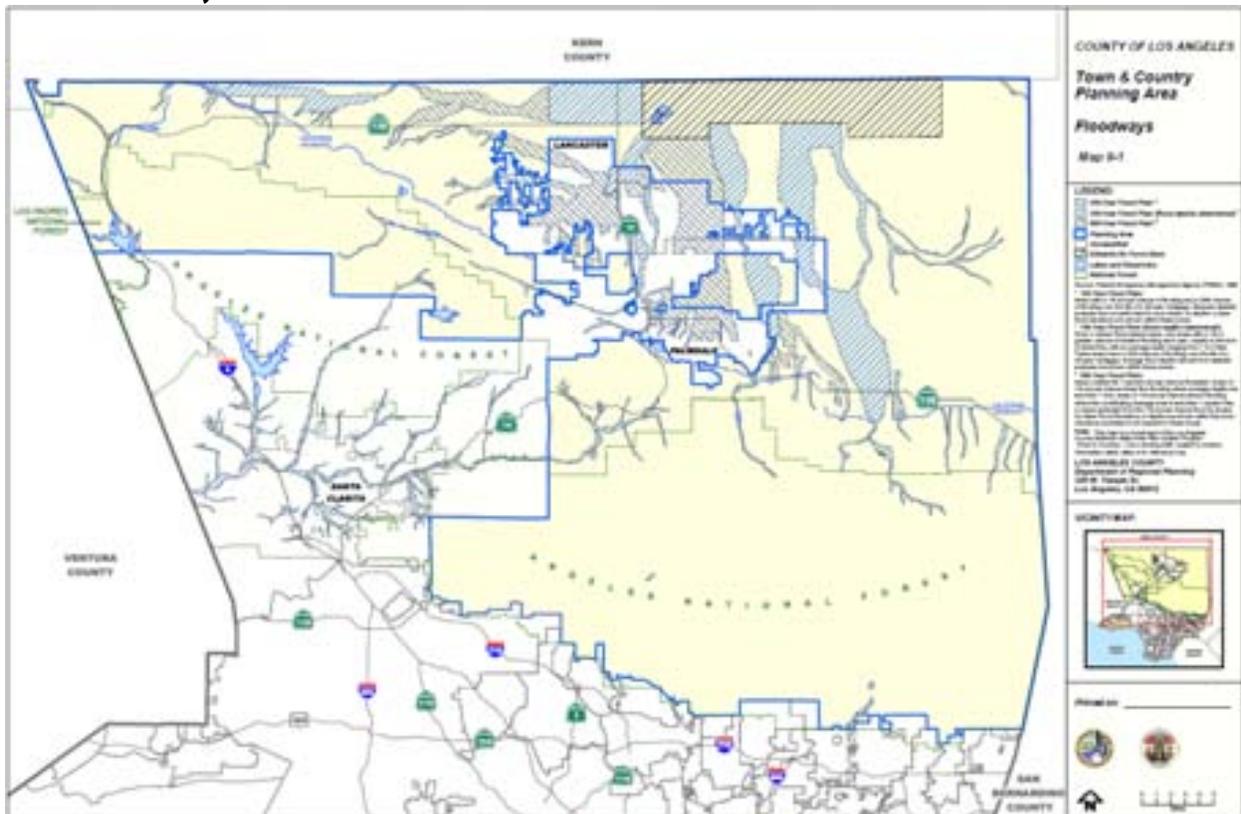
Flooding at 61st Street West and Avenue L-4

following major storms, the sands become saturated and runoff flows northward across the Antelope Valley, overflowing natural drainage channels. Heavy discharge and flooding is also prevalent along Big Rock Creek, Little Rock Creek, Amargosa Creek, and Anaverde Creek.

Portions of the Antelope Valley region floor are subject to flooding due to uncontrolled runoff from these foothills. This situation is aggravated by lack of proper drainage facilities and defined flood channels in the Antelope Valley region. Stormwater runoff that does not percolate into the ground eventually ponds and evaporates in the impermeable dry lake beds at Edwards Air Force Base.

As part of its statutory responsibilities to carry out the National Flood Insurance Program, the Federal Emergency Management Agency (FEMA) has mapped most of the flood risk areas in the United States. FEMA provides cities and counties with maps showing the boundaries of 100-year and 500-year floods. According to FEMA, portions of the Antelope Valley area lie within the 100-year flood hazard zone, included on the following Floodways map.

MAP 8-1: Floodways



Flood Management

There are several existing local and regional flood control facilities throughout the Antelope Valley, including channels, storm drains, and retention basins. Through an act of the State Legislature, Los Angeles County formed the Los Angeles County Flood Control District (LAFCD) to provide flood control services throughout the County and to enable the County to collect a fee for these services. The LAFCD extends to Avenue S but does not include the remainder of the Los Angeles County portion of the Antelope Valley. Parcels in Los Angeles County pay a fee on their annual tax bill for these services.

Following severe flooding in the Antelope Valley region in 1980, 1983, and 1987, the Los Angeles County Department of Public Works (LADPW) prepared the “Antelope Valley Comprehensive Plan of Flood Control and Water Conservation,” which proposed flood plain management in the hillside areas, structural improvements in the urbanizing areas, and non-structural management approaches in the rural areas. In 1991, LADPW teamed with the cities and unincorporated communities on a ballot measure to tax residents for the service whereby the entire Antelope Valley region would be included within the LAFCD or a new Antelope Valley Flood Control District. Residents voted against the measure and as a result funds were not available to construct adequate flood control systems. Due to the lack of defined natural drainage channels or adequate flood control system in the Antelope Valley, streets are still generally used to convey water runoff which tends to flow in sheets over paved surfaces and collect in low-lying areas.

NOISE

Noise is typically defined as unwanted sound. It is an undesirable by-product of human society’s normal day-to-day activities. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health—particularly sleep patterns. As the population of the Antelope Valley increases and more people both create and are exposed to noise, consideration of this factor is important in siting and designing new enterprises and developments.

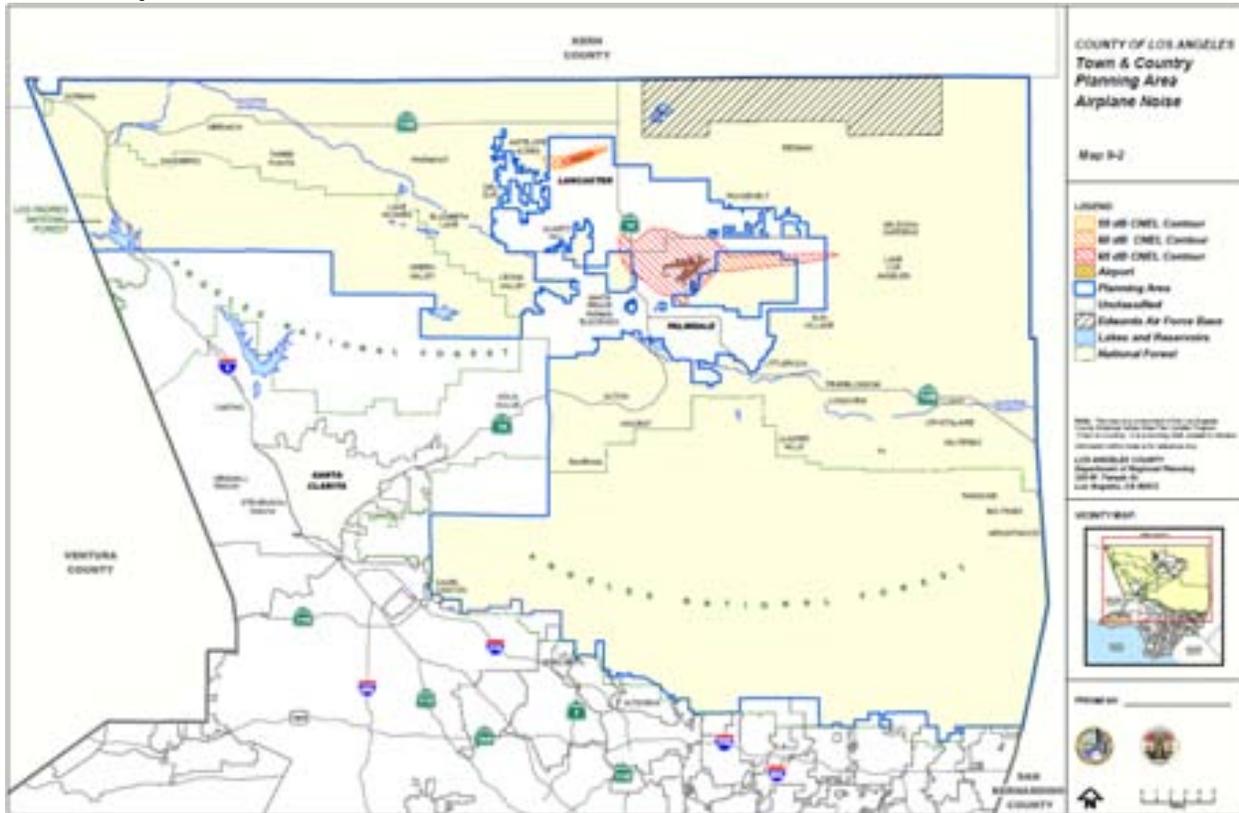
Noise Measurement

Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). The human ear does not respond uniformly to sounds at all frequencies, being less sensitive to very low and high frequencies than to medium frequencies that correspond with human speech. In response, the A-weighted noise level (or scale) has been developed. It corresponds better with people’s subjective judgment of sound levels. This A-weighted sound level is called the “noise level” referenced in units of dB(A). Because noise is measured on a logarithmic scale, a doubling of sound energy results in a 3 dB(A) increase in noise levels. However, changes in a community noise level of less than 3 dB(A) are not typically noticed by the human ear. Changes from 3 to 5 dB(A) may be noticed by some individuals who are extremely sensitive to changes in

noise. A 5 dB(A) increase is readily noticeable, while the human ear perceives a 10 dB(A) increase in sound level to be a doubling of sound.

TABLE 8-1: Common Noise Levels

<i>NOISE SOURCE</i>	<i>SOUND LEVEL (DBA)</i>
Threshold of Hearing	0
Quiet Rural Nighttime	20
Soft Whisper	30
Quiet Urban Nighttime	40
Dishwasher in Next Room	50
Conversational Speech	60
Vacuum Cleaner	70
Very Noisy Restaurant	80
Food Blender	90
Garbage Truck	100
Live Rock Music	130
Jet Plane	140
Rocket Launch Pad	180

MAP 8-2: Airplane Noise

Regulatory Setting

In most areas of the Antelope Valley, automobile and truck traffic is the primary source of environmental noise, but air and rail traffic, along with commercial and industrial activities, also play a part in environmental noise pollution. The use of Palmdale Regional Airport for commercial flights affects noise levels. Consideration must be given not only to flight patterns and aircraft design but also to nearby land uses and building codes. The Los Angeles County Airport Land Use Plan contains policies specific to noise generated from the use of airports. Rail traffic—especially commuter service—is also a noise source that will increase with the population and must be addressed.

Federal, state, and local governments regulate different aspects of environmental noise. In California, local regulation of noise involves implementation of General Plan policies and noise ordinance standards. General Plans identify general principles intended to guide and influence development plans. They recognize that different types of land uses have different sensitivities to noise. Noise ordinances set forth the specific standards and procedures for addressing particular noise sources and activities.

The County regulates noise through the County Code, Title 12, Chapter 12.08, Noise Ordinance, which states that all unnecessary, excessive, and annoying noise and vibration is prohibited in

the County. The ordinance also states that it is the policy of the County to maintain quiet in those areas that 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.

GEOLOGIC AND SOIL STABILITY

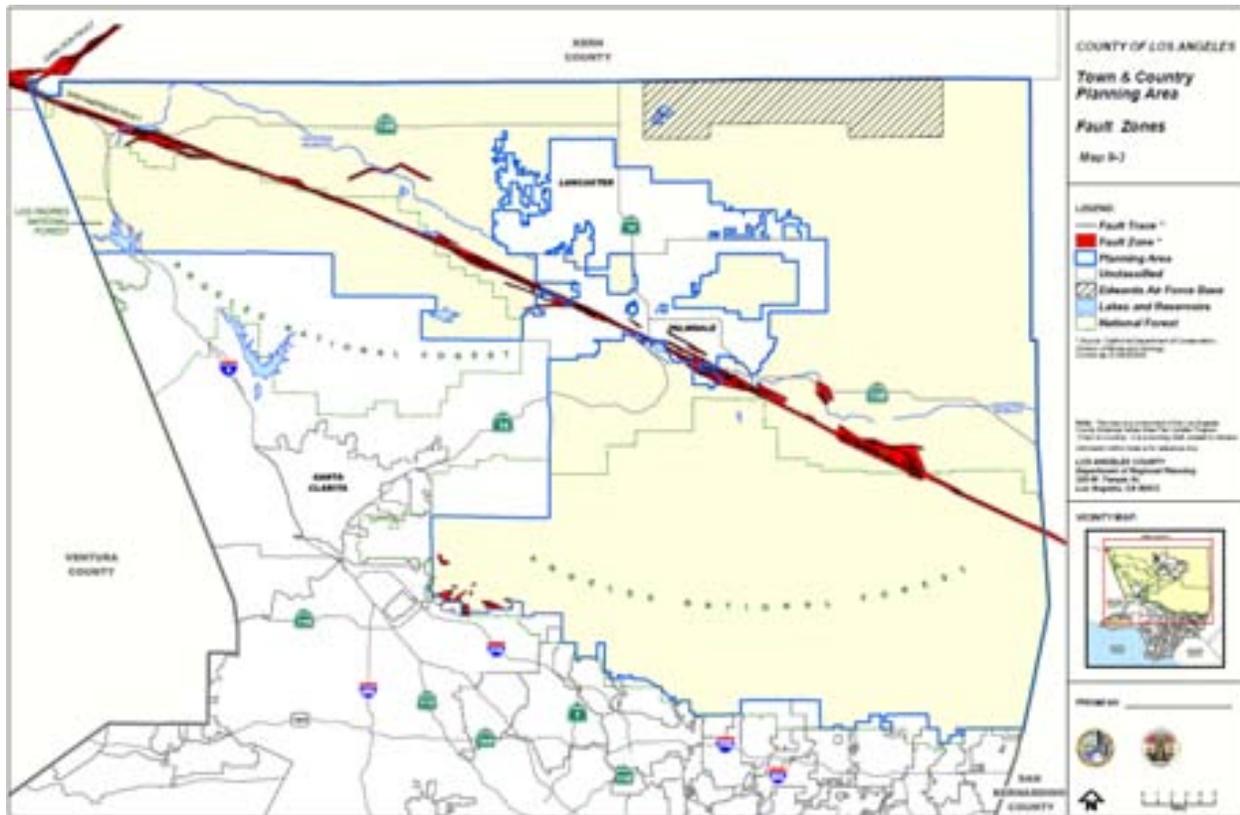
The geography of the Antelope Valley can be characterized as relatively flat land that is punctuated by occasional buttes or rock outcroppings. In general, the Antelope Valley floor is bowl-like with the low point located near the center of the playas or dry lakes, consisting primarily of alluvium soils. Elevations range from 2,300 to 3,500 feet above mean sea level. The area with the highest elevation is in the foothills of the San Gabriel Mountains. The Planning Area also includes higher mountain elevations in the Angeles National Forest.

The Antelope Valley is located in a seismically active region with both active and potentially active faults. The tectonic environment of the Antelope Valley is dominated by the San Andreas Fault, which forms the boundary between the North American and Pacific tectonic plates. Horizontal displacement of the plates along the fault causes earthquakes. In terms of destructive potential, the San Andreas Fault is considered one of the most dangerous in the State of California.



San Andreas Fault
Source: Scott Haefner, U.S. Geological Survey

There are several other fault traces that branch off of the primary fault in the San Andreas Fault system. These include the Cemetery Fault, the Nadeau Fault, and the Little Rock Fault. Movement along the San Andreas Fault may trigger movement along one or more of these subsidiary faults. Other major faults capable of producing significant ground shaking in the Antelope Valley are the Sierra Madre-San Gabriel Fault, the Garlock Fault, the Owens Valley Fault, and the White Wolf Fault.

MAP 8-3: Fault Zones

Seismic Hazards

The potential of earthquakes to damage structures or injure persons results from surface rupture along an active fault, ground shaking from a nearby or distant earthquake, liquefaction of soils, or landslides. Due to the Antelope Valley being a seismically active region, it is susceptible to all of these seismic hazards.

Surface Rupture

Seismically-induced surface rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The hazard of surface rupture is generally limited to land immediately adjacent to an active fault. The Alquist-Priolo Special Studies Zone Act of 1972 requires that special geologic studies be conducted to locate and assess the activity level of any fault within a potential development site. The intent of the law is to minimize damage from fault rupture by avoiding certain types of construction across an active fault.

Ground Shaking

Intense ground shaking is common along areas located closest to the earthquake-generating fault, and areas underlain by thick, loosely unconsolidated and saturated sediments. Ground movement during an earthquake can vary depending on the overall magnitude and distance to the fault.

While magnitude is a measure of the energy released in an earthquake, intensity is a measure of the ground shaking effects at a particular location. Areas underlain by bedrock typically experience less severe ground shaking. The effects of earthquakes due to ground shaking are measured by the Modified Mercalli Intensity Scale. This scale assigns Roman numeral values to the effects and measures intensity ranging from imperceptible shaking to catastrophic destruction.



Surface rupture

Source: Katherine Kendrick, U.S. Geological Survey

Liquefaction

Liquefaction refers to a phenomenon where the unconsolidated surface soils become saturated with water. These soils become very wet and mobile, losing strength and causing the foundations of structures to move. Liquefaction can occur in areas characterized by water-saturated, cohesionless materials below the water table. Susceptibility of liquefaction decreases with depth of the water table, and the age, cementation, and compactness of sediments. Numerous areas of potential liquefaction are located throughout the Antelope Valley.

Landslide

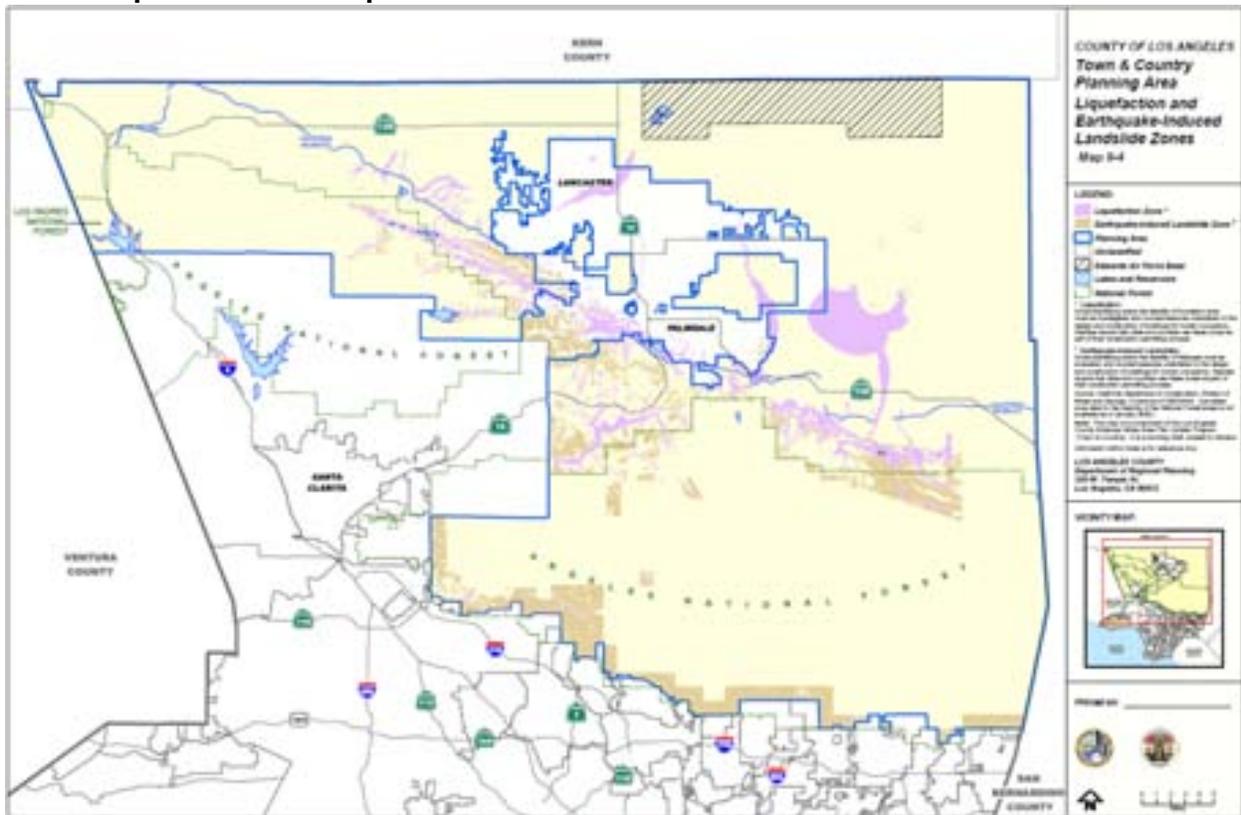


Landslide

Source: R.L. Schuster, U.S. Geological Survey

A landslide is a mass of rock, soil, and debris displaced down-slope by sliding, flowing, or falling. The susceptibility of land failure is dependent on the amount of seismic activity as well as slope and geology. Factors that decrease resistance to movement in a slope include pore water pressure, material changes, and structure. Earthquake-induced landslides are a seismic hazard that exists throughout many areas of the Antelope Valley.

MAP 8-4: Liquefaction and Earthquake-Induced Landslide Zones



AIR QUALITY

Various daily activities contribute to the air quality of the Planning Area. Commuters on primary roadways such as State Route 14 and 138 carry a substantial amount of daily traffic through the Antelope Valley releasing pollutants on their drive. Factories and power plants emit pollutants when operating their facilities. Ocean winds transport pollutants from other regions into the Planning Area. The dirty air is trapped by the mountains on the sides and a warm layer of air on top, where additional sun and oxygen turns the dirty air into smog and acid rain.

The Antelope Valley Air Quality Management District (AVAQMD) is the regulatory agency responsible for monitoring and regulating air quality and ensuring compliance with the Federal Clean Air Act and California air pollution laws for the majority of the Planning Area. They are tasked with developing air quality management plans, issuing equipment permits, and tracking air quality levels to protect public health and welfare.

Air quality in the Planning Area is monitored 24 hours a day, seven days a week at AVAQMD's office in Lancaster. When reviewing these up to the minute reports, they are looking for high levels of regulated air pollutants that have been identified in the National Ambient Air Quality

Standards. If high concentrations are found, the public is alerted through news broadcasts and other media sources.

Regulated Air Pollutants

Air pollutants that are regulated by the Federal and California Clean Air Acts are broken down into three categories:

- Criteria air pollutants
- Toxic air contaminants (TACs)
- Global warming and ozone-depleting gases

Criteria Air Pollutants

In 1970, the U.S. Environmental Protection Agency (EPA) identified six “criteria” pollutants they found to be most harmful to human health and welfare. The following table describes these pollutants, their sources, and their effects:

TABLE 8-2: Air Pollutants, Sources and Health Effects		
<i>Pollutants</i>	<i>Source</i>	<i>Primary Health Effects</i>
Ozone (O ₃)	Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	Aggravation of respiratory and cardiovascular diseases; Reduced lung function, Increased cough and chest discomfort.
Carbon Monoxide (CO)	Incomplete combustion of fuels and other carbon-containing substances, such as motor vehicle exhaust; Natural events, such as decomposition of organic matter.	Aggravation of some heart disease. Reduced tolerance for exercise; Impairment of mental function; Impairment of fetal development; Death at high levels of exposure.
Fine Particulate Matter (PM ₁₀ and PM _{2.5})	Stationary combustion of solid fuels; Construction activities; Industrial processes; Atmospheric chemical reactions.	Reduced lung function; Aggravation of respiratory & cardio-respiratory diseases; Increases in mortality rate; Reduced lung function growth in children.
Nitrogen Dioxide (NO ₂)	Motor vehicle exhaust; High-temperature stationary combustion; Atmospheric reactions.	Aggravation of respiratory illness.
Sulfur Dioxide (SO ₂)	Combustion of sulfur-containing fossil fuels; Smelting of sulfur bearing metal ores; Industrial processes.	Aggravation of respiratory diseases (asthma, emphysema); Reduced lung function.
Lead (Pb)	Contaminated soil	Behavioral and hearing disabilities in children; Nervous system impairment.

Source: South Coast Air Quality Management District (2005)

In the Antelope Valley, a majority of the very finest measured particles (PM_{2.5}) are organic carbon compounds from combustion sources. Key sources include vehicles, residential wood combustion, agricultural and prescribed burning, and stationary combustion sources.

Toxic Air Contaminants (TACs)

Toxic Air Contaminants (TACs) are referred to as “non-criteria” air contaminants because ambient air quality standards have not been established. There are hundreds of TACs, and exposure to these pollutants is associated with elevated risk of cancer and non-cancer health effects such as birth defects, genetic damage, and other adverse effects. The effects on human health may have a long duration or short duration. Short duration health effects are attributable to minor exposure to air toxics. These effects include nausea, skin irritation, respiratory illness, and, in extreme cases, death. Long duration health effects result from long-term exposure. The USEPA regulates TACs through technology-based requirements which are implemented by state and local agencies. California regulates TACs through the air toxics program and the Air Toxics “Hot Spots” Information and Assessment Act.

Global Warming and Ozone-Depleting Gases

Ozone located in the stratosphere or upper atmosphere protects the Earth from damaging effects of solar ultraviolet radiation. This ozone layer is slowly being depleted and compounds, including chlorofluorocarbons (CFCs), halons, carbon tetrachloride, and methyl chloroform, accumulate in the lower atmosphere and then gradually move their way out to the stratosphere. In the stratosphere, these compounds participate in complex chemical reactions, destroying the upper ozone layer. As the ozone layer depletes, ultraviolet radiation penetrates the atmosphere, reaching the Earth’s surface, thereby increasing the chance of skin cancers and cataracts, contributing to damage to agricultural products and degrading air quality.

Some gases in the atmosphere affect the Earth’s heat balance by absorbing infrared radiation. This layer of gases gets trapped in the atmosphere and does not allow heat to escape, creating a “greenhouse” effect leading to global warming. Global warming is a serious threat to public health, safety, and welfare. Assembly Bill 32 (AB32) addresses issues associated with global warming in California.

Assembly Bill 32: California Global Warming Solutions Act of 2006

Scientists from around the world have predicted that global warming will adversely impact California’s ecosystems and economy. Global warming is defined by the U.S. Environmental Protection Agency as:

“...an average increase in the Earth’s temperature, which in turn causes changes in climate. A warmer Earth may lead to changes in rainfall patterns, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans. When

scientists talk about the issue of climate change, their concern is about global warming caused by human activities.”¹

Human-generated greenhouse gases, primarily in the form of carbon dioxide, account for seventy-five percent of emissions.² Such human-generated greenhouse gases come from activities such as driving a car, throwing away waste, cutting down forests, and using electrical appliances.

Assembly Bill (AB) 32 is a bill that aims to reduce and control greenhouse gas emissions in California. It requires the California Air Resources Board (CARB) to develop a comprehensive program of regulatory and market mechanisms to reduce greenhouse gases and carbon dioxide emissions to 1990 levels by the year 2020. By 2012, CARB must adopt a comprehensive program. In the interim, CARB has defined the 1990 emissions baseline and measured the greenhouse gas emissions of the industries it determines to be significant sources of greenhouse gas emissions.

The proposed Los Angeles County General Plan Update includes several goals and policies to address issues related to air quality. The proposed General Plan is looking into programs such as the Energy and Water Efficiency Program, the Green Building Program, the Environmental Stewardship Program, and the Public Education and Outreach Program and endorses clean air options that encourage the use of public transit, bicycles, carpools, ridematching, ridesharing, telecommuting, vanpooling, and walking.

HAZARDOUS MATERIALS/WASTE



*Hazardous materials clean up crew
Source: Robert A. Eplett, OES CA*

Concerns over the handling and disposal of hazardous materials and waste products within the Antelope Valley are based on the presence of aerospace research and development as well as other activities such as ammunition and explosives manufacturing over the years. Hazardous materials handling is subject to numerous laws and regulations at all levels of government. Federal and state laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such

materials are accidentally released into the environment, to prevent or to mitigate injury to human health or the environment.

¹ U.S. Environmental Protection Agency website: <http://epa.gov/climatechange/kids/cc.html>. Accessed February 2009.

² U.S. Environmental Protection Agency website: <http://www.epa.gov/climatechange/basicinfo.html>. Accessed February 2009.

Hazardous Waste Regulation

The framework for regulation of hazardous wastes in California is provided by the Hazardous Waste Control Law of 1972. This law authorizes the California State Department of Toxic Substances Control and local Certified Unified Program Agencies (CUPA) to administer the state's hazardous waste program and implement the federal program in California.

The Los Angeles County Fire Department (LACFD) has the regulatory responsibility for hazardous waste in the Antelope Valley. The Health Hazardous Material Division of the LACFD is the CUPA in the Antelope Valley that administers programs related to waste generation, hazardous materials inventories, and risk management. Furthermore, depending on the issue, situation, or conditions, the federal, State, and local regulatory authorities below are also involved with hazardous waste:

Federal

- Environmental Protection Agency
- Department of Transportation
- Department of Fish and Game

State

- California Environmental Protection Agency
- Department of Toxic Substances Control
- State Water Resources Control Board
- California Integrated Waste Management Board
- California Air Resources Board
- State Board of Equalization

Local

- Los Angeles Regional Water Quality Control Board
- Southern California Air Quality Management District
- Los Angeles County Flood Control
- Los Angeles County Department of Public Works
- Los Angeles County Sanitation Districts

Local Hazardous Waste Management Plan

Currently there are no hazardous waste treatment facilities located in the Antelope Valley. According to the Los Angeles County Department of Public Works, untreated hazardous waste is shipped to distant disposal facilities in other counties and states.

Los Angeles County has a Hazardous Waste Management Plan describing and defining existing and future hazardous waste conditions, off-site management facilities, and recommended action programs. Components of the plan include the following:

- Data regarding current hazardous waste generation
- Descriptions of current hazardous waste treatment facilities
- Feasibility of recycling or reducing hazardous waste generation
- Consideration of household and small generator hazardous waste
- Determination of the need for additional office hazardous waste treatment facilities
- Identification of facilities that can be expanded
- A schedule for implementation

The Hazardous Waste Management Plan also establishes siting criteria for development of needed off-site hazardous waste management facilities and designates general geographic areas within the unincorporated County and City areas where the siting criteria might be met. The following objectives must be taken into consideration when deciding the location for a new hazardous waste management facility:

- Protect the residents
- Ensure the structural stability and safety of the facility
- Protect surface water
- Protect groundwater
- Protect air quality
- Protect environmentally sensitive areas
- Ensure safe transportation of hazardous waste
- Protect the social and economic development goals of the community

Department of Toxic Substances Control

The Department of Toxic Substances Control (DTSC), a Division of CalEPA, has the authority of protecting California and Californians from exposures to hazardous wastes by regulating hazardous waste, cleaning up existing contamination, and looking for ways to reduce the hazardous waste produced in California. The DTSC regulates hazardous waste in California primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and Safety Code. In addition, DTSC reviews and monitors legislation to ensure that the position reflects the DTSC's goals.

STANDARDIZED EMERGENCY MANAGEMENT SYSTEM

The Standardized Emergency Management System (SEMS) is a state-wide California system used by police officers, firefighters and other responders in disaster events. The primary goal of SEMS is to aid in communication and response by providing a common management system and language. Fully activated, the SEMS consists of five levels: field response, local government, operational areas, OES Mutual Aid Regions, and State government. SEMS establishes the following:

- Organizational levels for managing emergencies;
- Standardized emergency management methods; and
- Standardized training for emergency responders and managers

All local governments, including counties, cities, school district and special districts, must use SEMS to be eligible for funding of their personnel related costs under State disaster assistance programs. Los Angeles County is using this system for emergency response.

ANTELOPE VALLEY TOWN COUNCILS

Association of Rural Town Councils

Website: None
 Meetings: Last Thursday of every month at 7:00pm
 Meeting Location: North County Training Center – Fire Station 129
 42110 N 6th Street West
 Lancaster, CA 93534

Acton Town Council

Website: www.cityofacton.org/council.htm
 Meetings: 1st & 3rd Monday of every month at 7:30pm
 Meeting Location: Acton Community Center
 3748 W Nickels Avenue
 Acton, CA 93510

Antelope Acres Town Council

Website: None
 Meetings: 3rd Wednesday of every month at 7:00pm
 Meeting Location: Westside Community Church
 47707 N 90th Street West
 Antelope Acres, CA 93536

Green Valley Town Council

Website: None
 Meetings: 2nd Wednesday of every month at 7:00pm
 Meeting Location: Green Valley Community Center
 39118 Calle Bonita
 Green Valley, CA 91390

Juniper Hills Town Council

Website: www.juniperhills-ca.org/jhtc/index.htm
 Meetings: 1st Wednesday of even months at 7:00pm
 Meeting Location: Juniper Hills Community Center
 31401 N 106th Street East
 Juniper Hills, CA 93543

Lake Los Angeles Town Council

Website: www.lakelachamber.org/llartc1.htm
Meetings: 4th Tuesday of every month at 7:00pm
Meeting Location: Vista San Gabriel Elementary School
18020 East Avenue O
Lake Los Angeles, CA 93591

Lakes Town Council

Website: None
Meetings: 1st Saturday of every month at 8:30am
Meeting Location: Lake Hughes Community Center
17520 Elizabeth Lake Road
Lake Hughes, CA 93532

Leona Valley Town Council

Website: leonavalleytowncouncil.org
Meetings: 2nd Monday of every month at 7:30pm
Meeting Location: Leona Valley Community Center
8367 Elizabeth Lake Road
Leona Valley, CA 93551

Littlerock Town Council

Website: None
Meetings: 2nd Thursday of every month at 7:00pm
Meeting Location: Alpine Grange
8650 E Avenue T-8
Littlerock, CA 93543

Quartz Hill Town Council

Website: qhtc.av.org
Meetings: 3rd Tuesday of every month at 6:30pm
Meeting Location: George Lane Park
5520 W Avenue L-8
Quartz Hill, CA 93536

Roosevelt Town Council

Website: None
Meetings: No regularly scheduled meetings
Meeting Location: Eastside Union School - Cafeteria
6742 E Avenue H
Lancaster, CA 93535

Sun Village Town Council

Website: None
Meetings: 4th Monday of every month at 7:00pm
Meeting Location: Shaw Building
9657 E Avenue Q-10
Little Rock, CA 93543

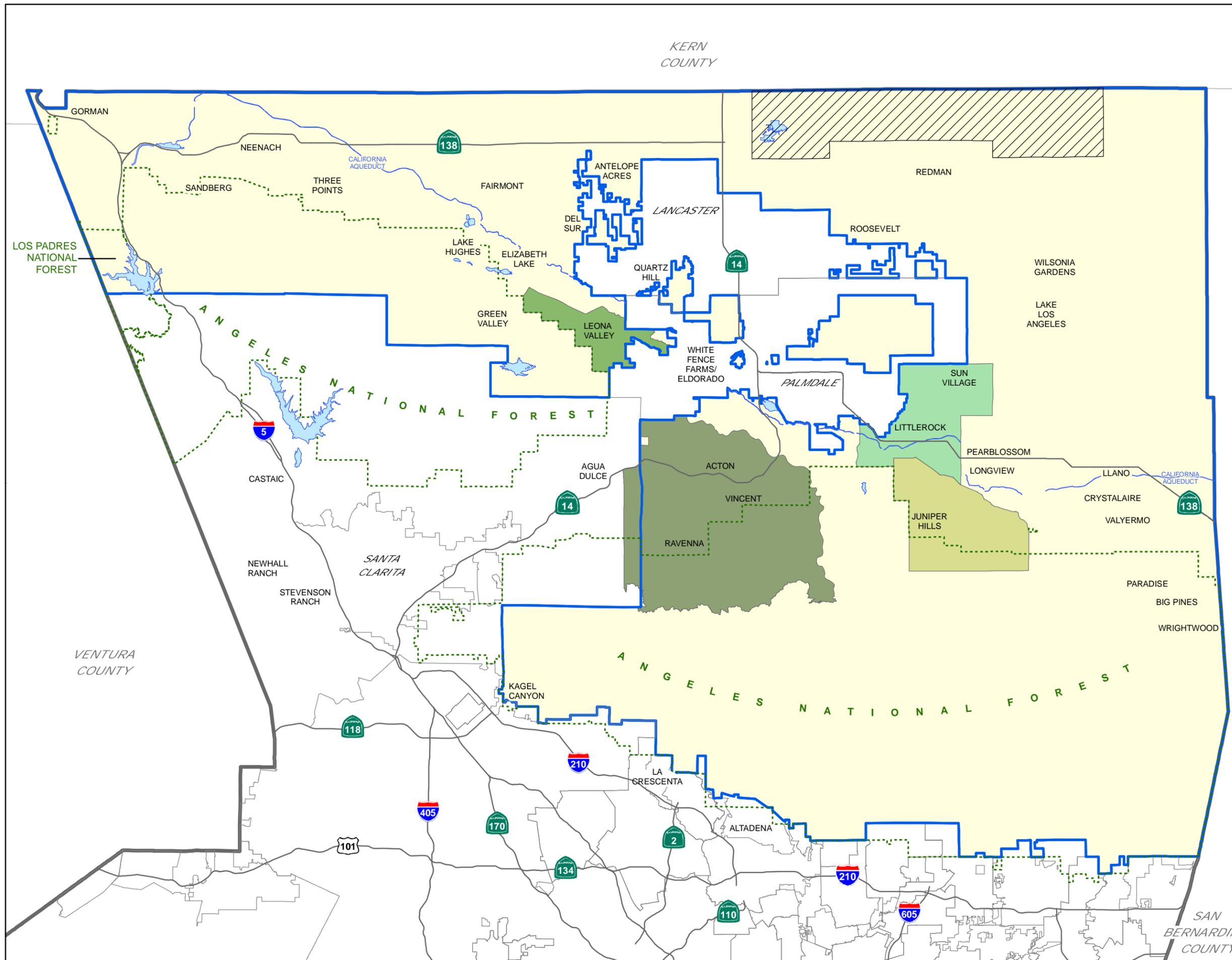
Three Points / Liebre Mountain Town Council

Website: 3pointsliebremountain.googlepages.com
Meetings: 2nd Saturday of every other month at 9:30am
Meeting Location: TBD – check website

**Town & Country
Planning Area**

**Adopted Community
Standards Districts**

Map 2-2



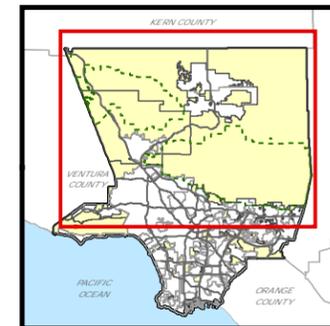
LEGEND:

- Acton CSD
- Juniper Hills CSD
- Leona Valley CSD
- Southeast Antelope Valley CSD
- Planning Area
- Unclassified
- Edwards Air Force Base
- Lakes and Reservoirs
- National Forest

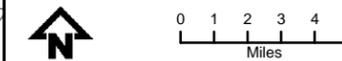
Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

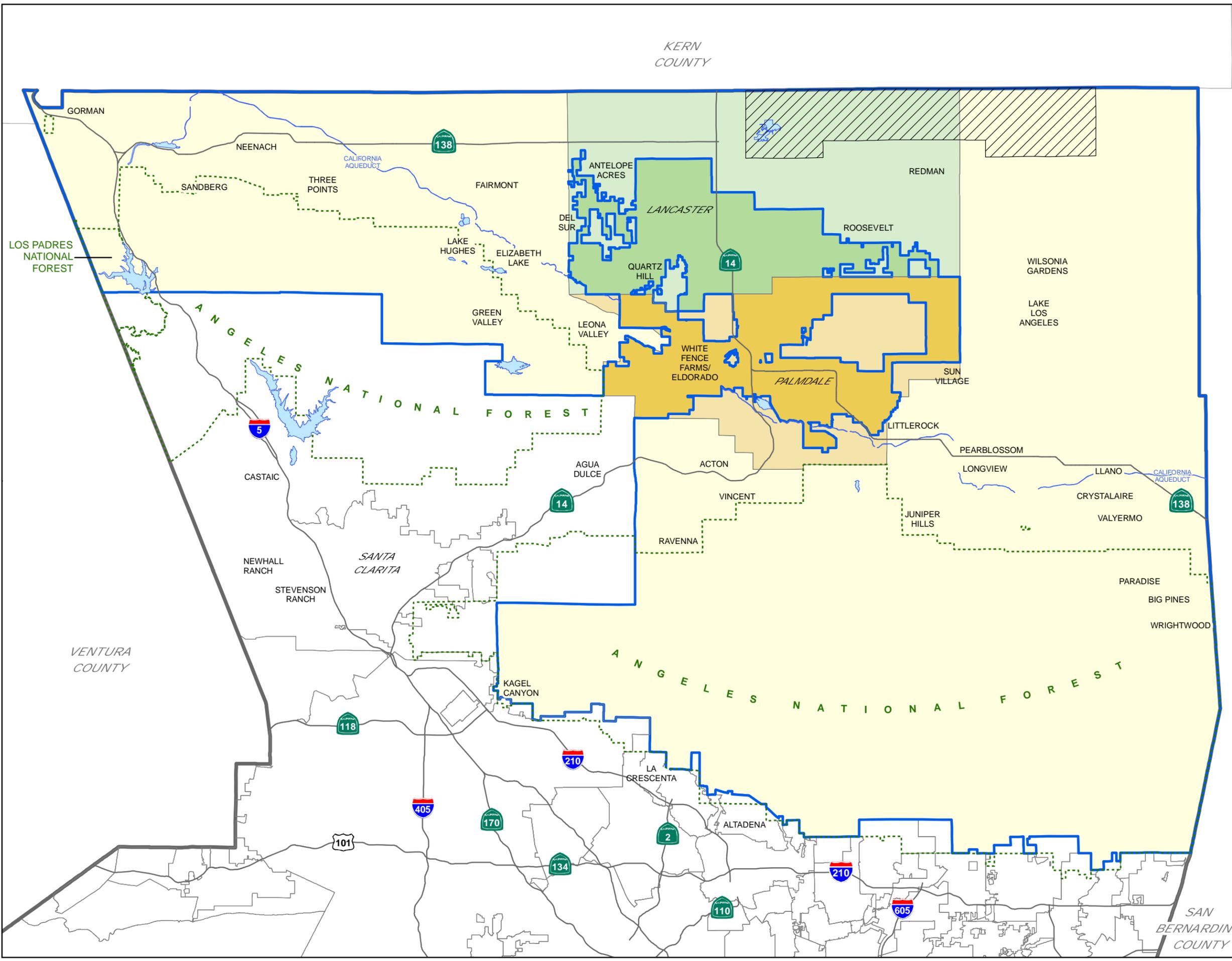
LOS ANGELES COUNTY
Department of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

VICINITY MAP:



Printed on: _____





LEGEND:

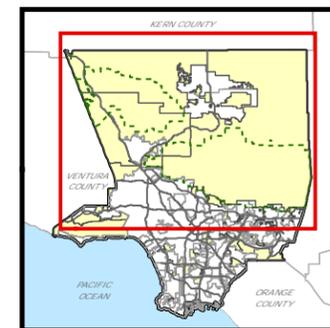
- Lancaster SOI*
- Palmdale SOI*
- Planning Area
- Unclassified
- Edwards Air Force Base
- Lakes and Reservoirs
- National Forest

* Spheres of Influence
Source: Local Agency Formation Commission (LAFCO) for Los Angeles County, 2004. Data is current as of February 2008.

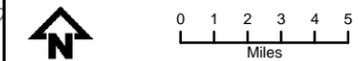
Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

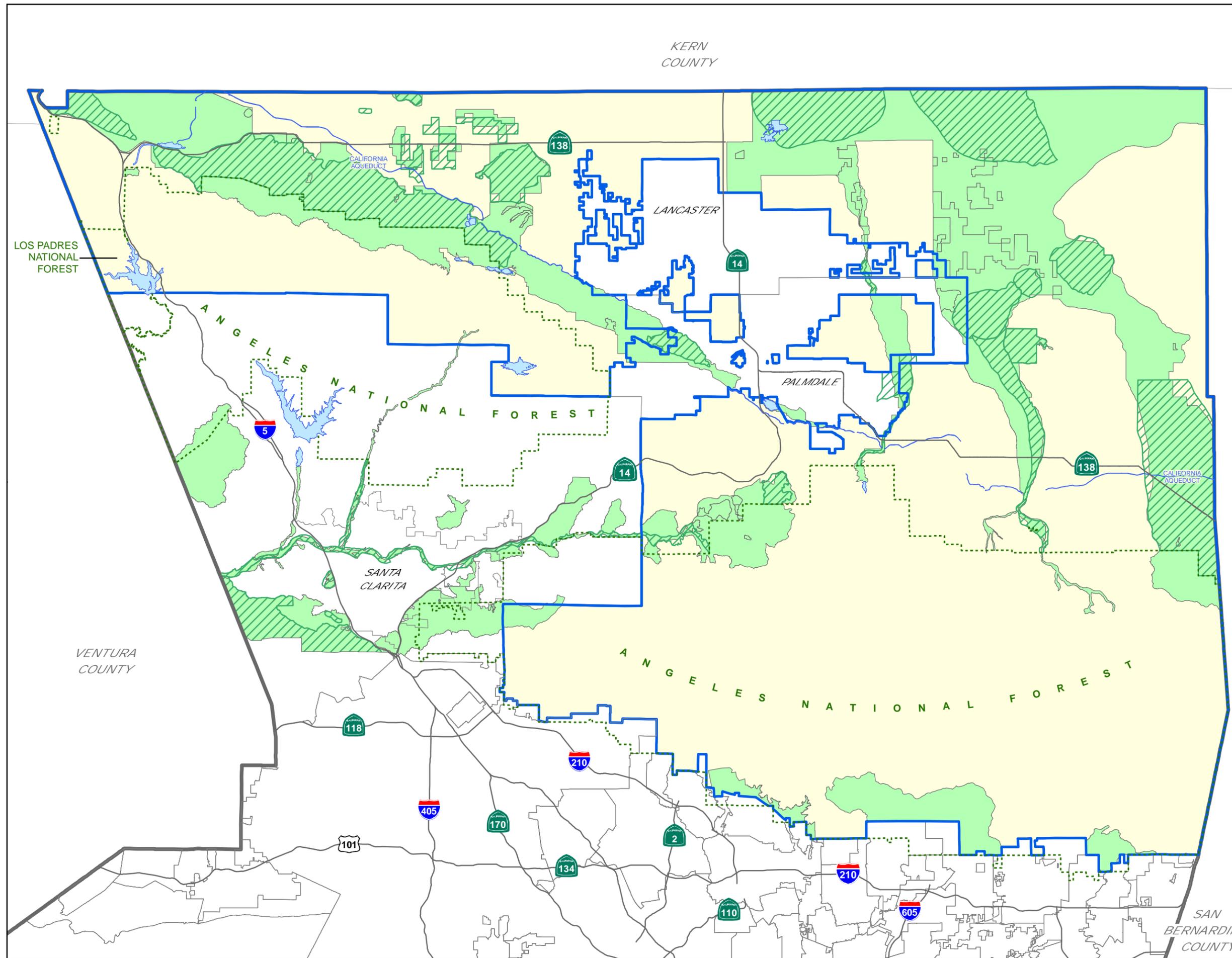
LOS ANGELES COUNTY
Department of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

VICINITY MAP:



Printed on: _____



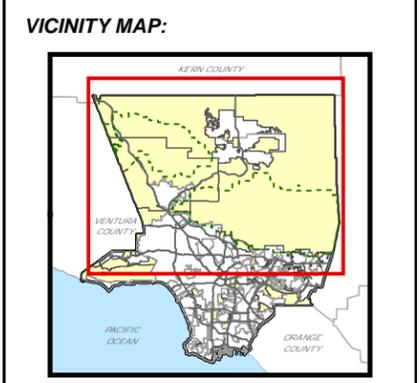


COUNTY OF LOS ANGELES
Town & Country
Planning Area
 Adopted and Proposed
 Significant Ecological Areas
 Map 3-2

- LEGEND:**
- Adopted 1976 SEAs
 - Proposed SEAs
 - Planning Area
 - Unclassified
 - Lakes and Reservoirs
 - National Forest

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012



Printed on: _____

**Los Angeles County General Plan
ANTELOPE VALLEY
AREAWIDE GENERAL PLAN**

**Trails Map
Map 3-3**
Adopted by the Board of Supervisors: January 16, 2007
As Amended Through: 1/16/07 RPA-20060001-(5)

Legend

- Adopted County Backbone Trail System
- Pacific Crest National Trail
- Federal/National Forest Trails
- Incorporated City Trails
- Freeways
- 2004 Parcels
- Parks
- Adopted Significant Ecological Areas
- Edwards Air Force Base
- Lakes
- National Forest Boundary
- Antelope Valley Areawide General Plan Planning Area

Note: This is an updated trails map for the Antelope Valley Areawide General Plan and replaces the previous trails map adopted by the Board of Supervisors with the 1995 update of the Santa Clarita Valley Area Plan. It has been updated at the request of the Los Angeles County Department of Parks and Recreation with participation of the Santa Clarita Valley County Advisory Committee, a group that oversees all local parks services. The geographic data has been prepared using advanced and accurate computerized Geographic Information Systems (GIS) mapping techniques. The trail alignments are not intended to be precise. Rather, the best and most feasible route is to be determined as a result of further study. All future projects are developed and the final adopted connectivity needs of these developments become clear. In addition to the Parks and Recreation Department, data for this map has been provided by the City of Los Angeles, the City of Santa Clarita, the City of Palmdale, and the City of Lancaster. Data for the Pacific Crest Trail was provided by the Pacific Crest Trail Association.



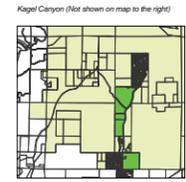
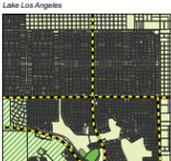
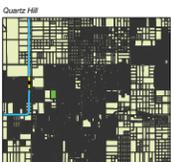
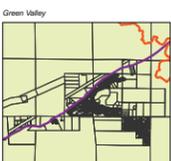
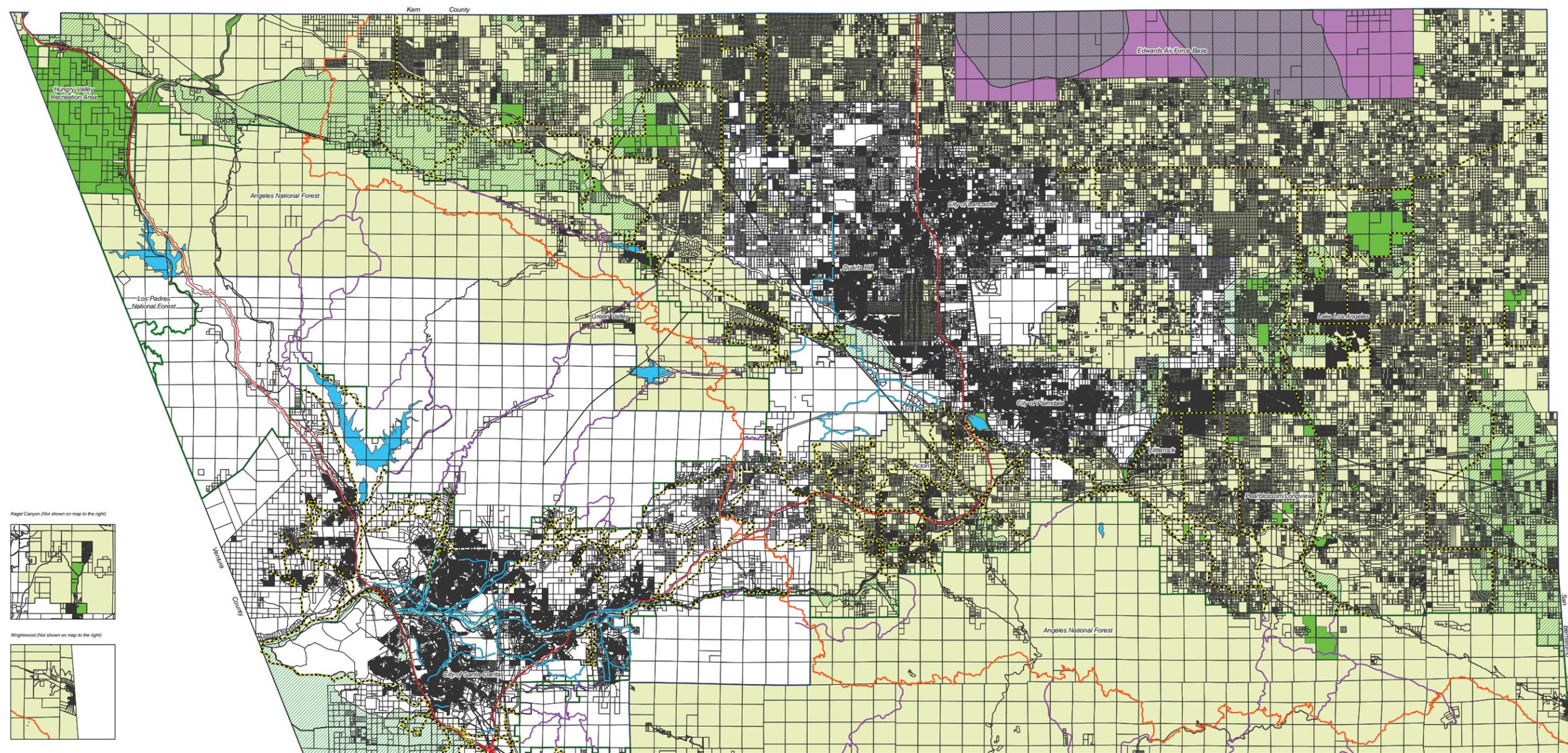
KEY MAP:

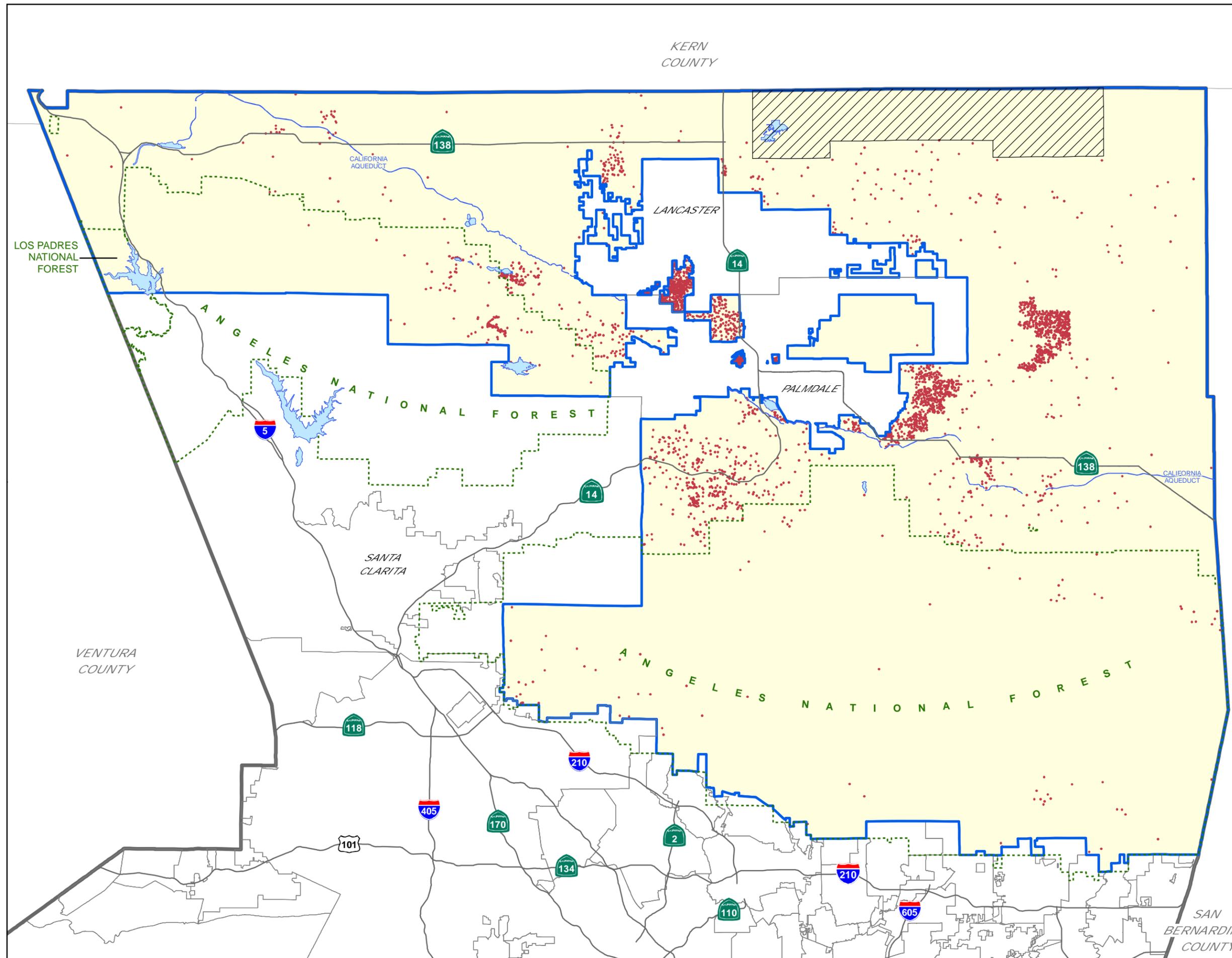


VICINITY MAP:



LOS ANGELES COUNTY
Department of Parks and Recreation
1000 Wilshire Blvd., Suite 1000
Los Angeles, CA 90017
Phone: (213) 473-3000
www.parksandrec.com





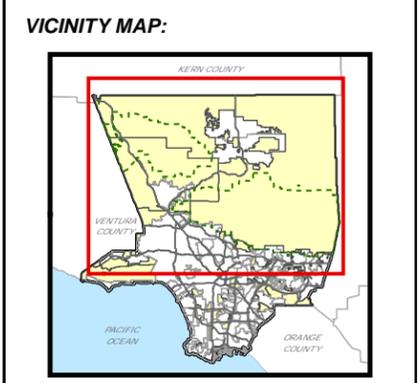
COUNTY OF LOS ANGELES
Town & Country Planning Area
Population Density
Map 4-1

LEGEND:
 • 1 Dot = 20 People
 [Blue Outline] Planning Area
 [White Box] Unclassified
 [Hatched Box] Edwards Air Force Base
 [Blue Box] Lakes and Reservoirs
 [Dotted Green Box] National Forest

* Source: US Census Bureau, Census 2000. Map is based on block data and is a conceptual representation of population density.

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012

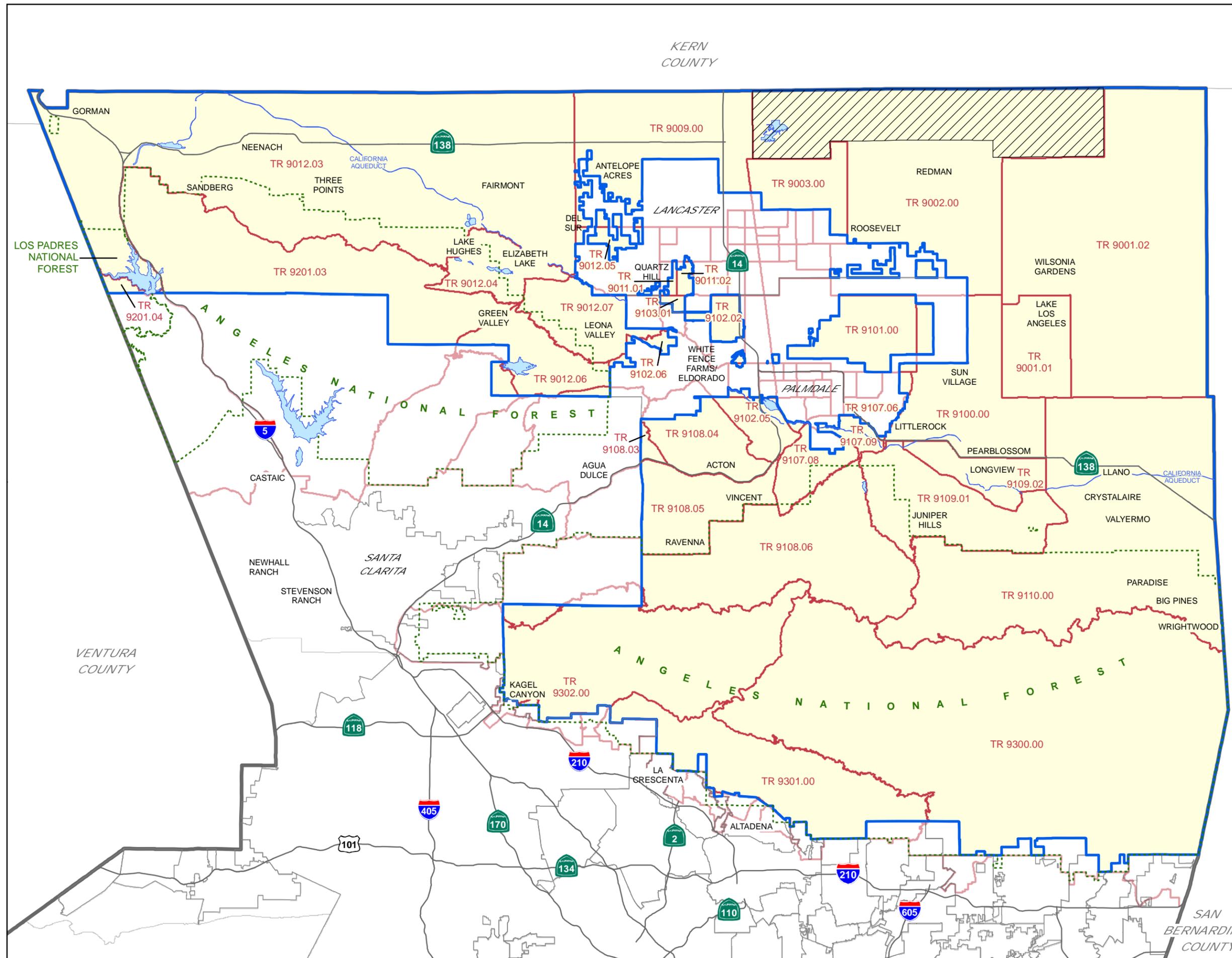


Printed on: _____

Town & Country Planning Area

Census Tracts

Map 4-2



LEGEND:

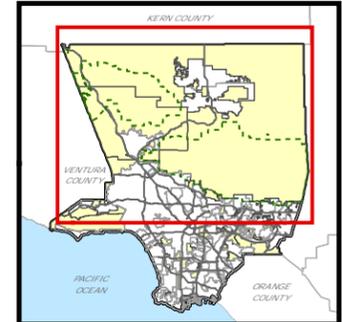
- Census Tracts*
- Planning Area
- Unclassified
- Edwards Air Force Base
- Lakes and Reservoirs
- National Forest

* Source: US Census Bureau, Census 2000.

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

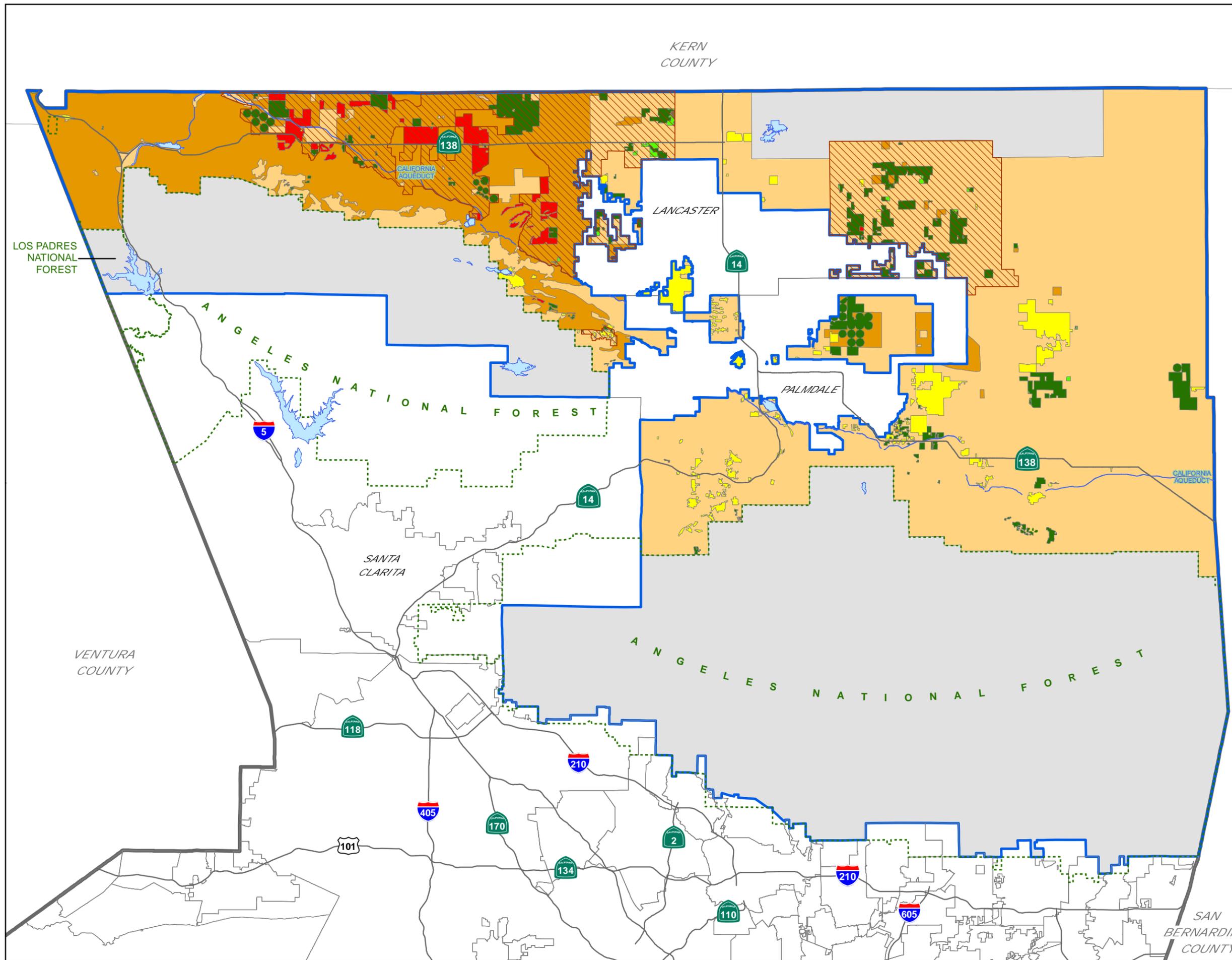
LOS ANGELES COUNTY
Department of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

VICINITY MAP:



Printed on: _____

0 1 2 3 4 5
Miles



LEGEND:

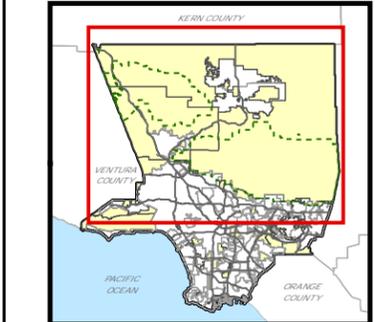
- Prime Farmland*
- Farmland of Statewide Importance*
- Farmland of Local Importance*
- Grazing Land*
- Unique Farmland*
- Other Land*
- Urban and Built-Up Land*
- Water*
- Not Surveyed*
- Agricultural Opportunity Area**
- Planning Area
- Incorporated Cities
- Lakes and Reservoirs
- National Forest

* Source: State of California Farmland Mapping and Monitoring Program, 2006.
 ** Source: Department of Regional Planning, General Plan Update, 2008.

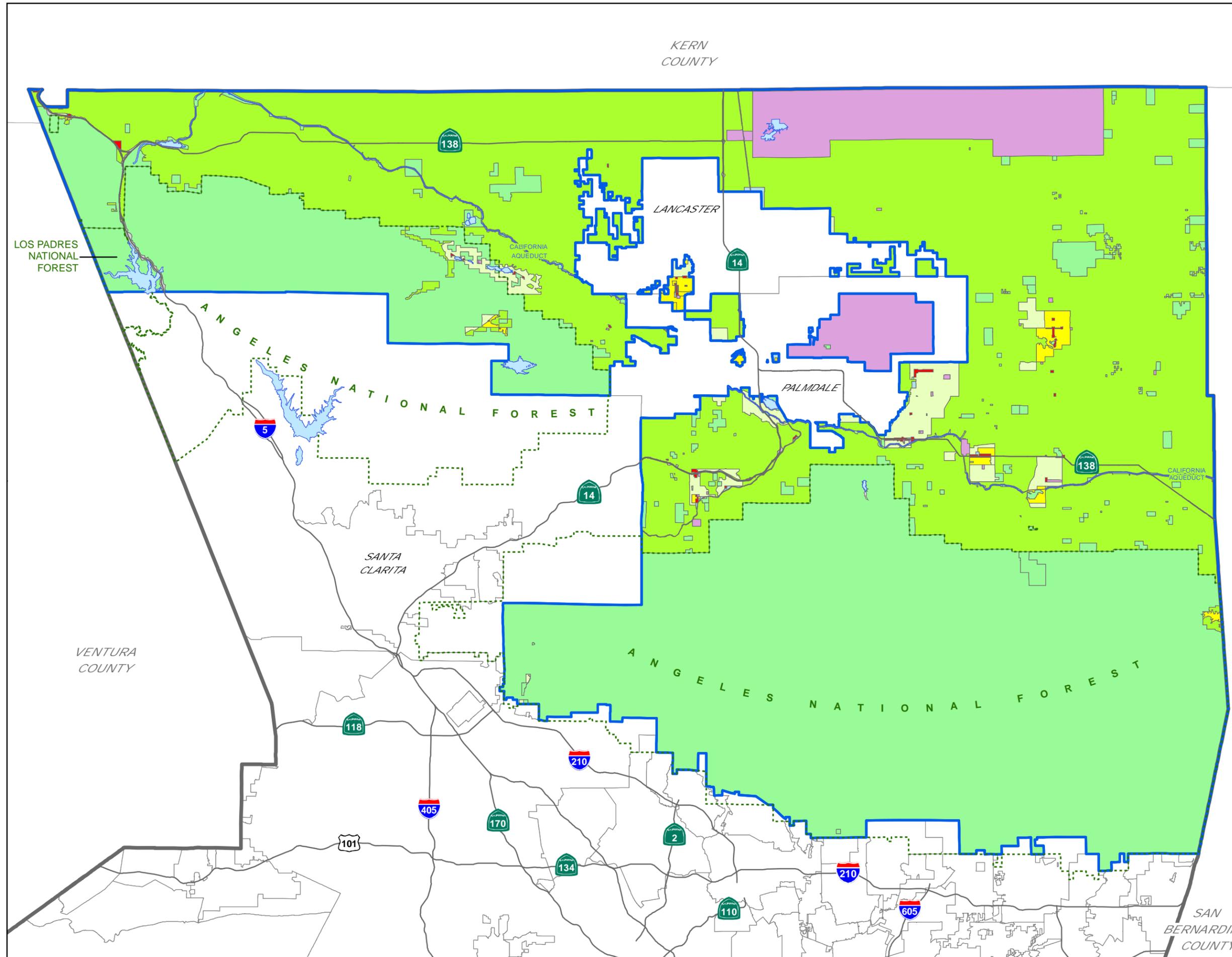
Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012

VICINITY MAP:



Printed on: _____

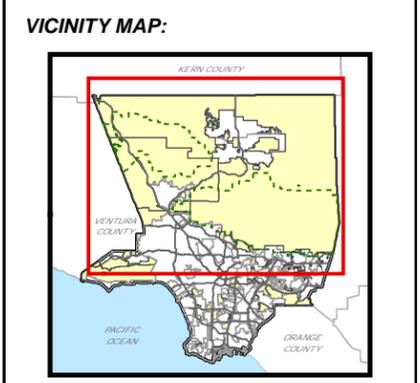


COUNTY OF LOS ANGELES
Town/ Country
Planning Area
 %, * 5 bhYcdYJU`Ym~
 5 fYUD`Ub v
 AUd*!%

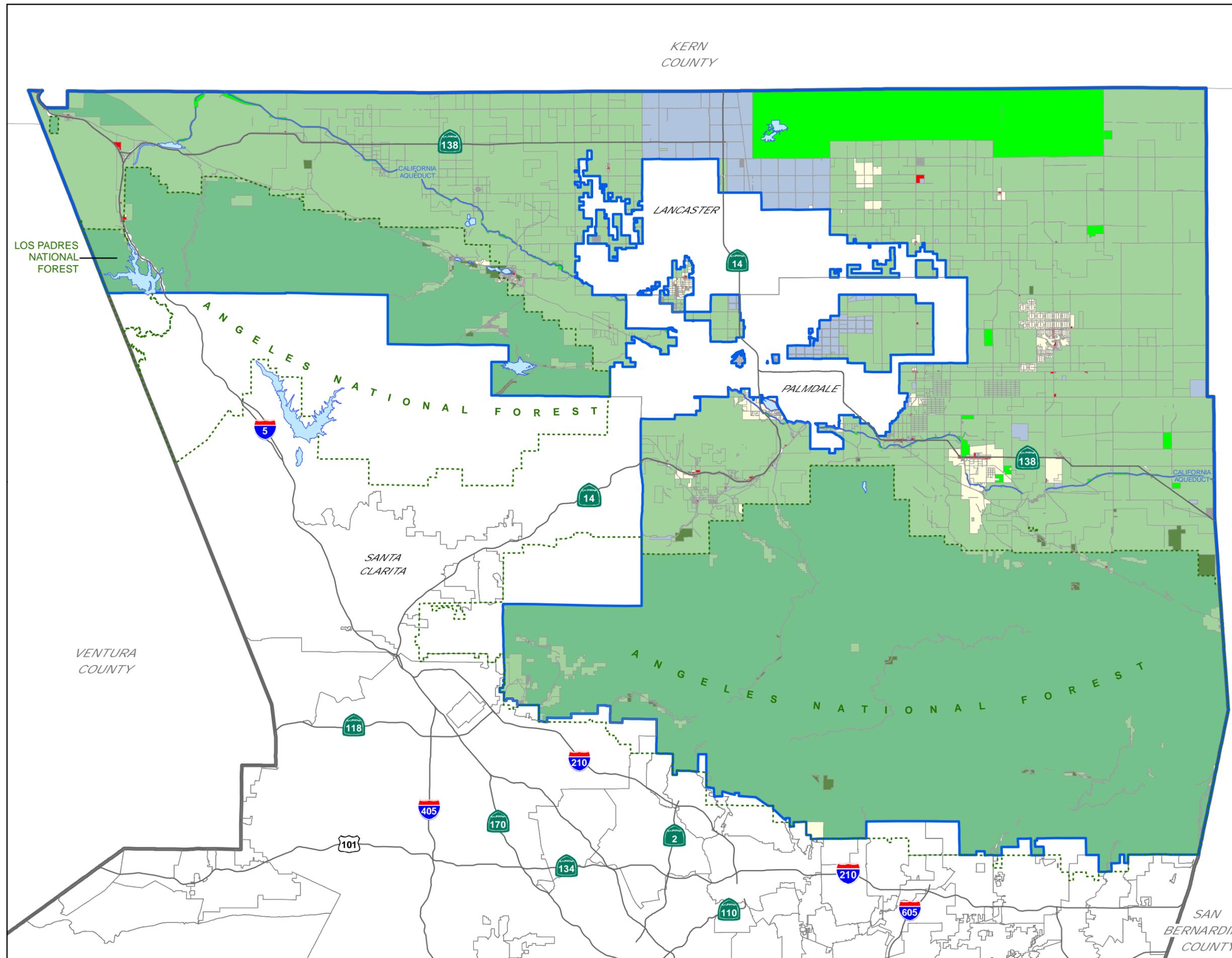
- LEGEND:**
- Urban Residential**
 - Rural Land**
 - Rural Residential**
 - Commercial**
 - Public Facilities**
 - Industrial**
 - Transportation**
 - Open Space**
 - Planning Area**
 - Unclassified**
 - Lakes and Reservoirs**
 - National Forest**

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012



Printed on: _____



COUNTY OF LOS ANGELES

Town/ Country Planning Area

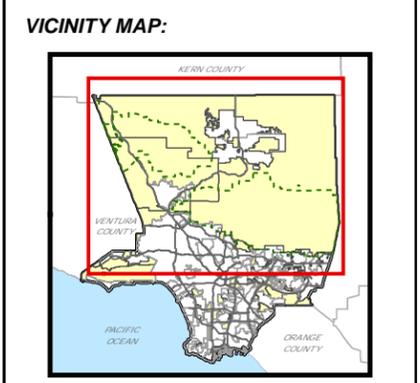
Generalized Zoning

AUd*1&

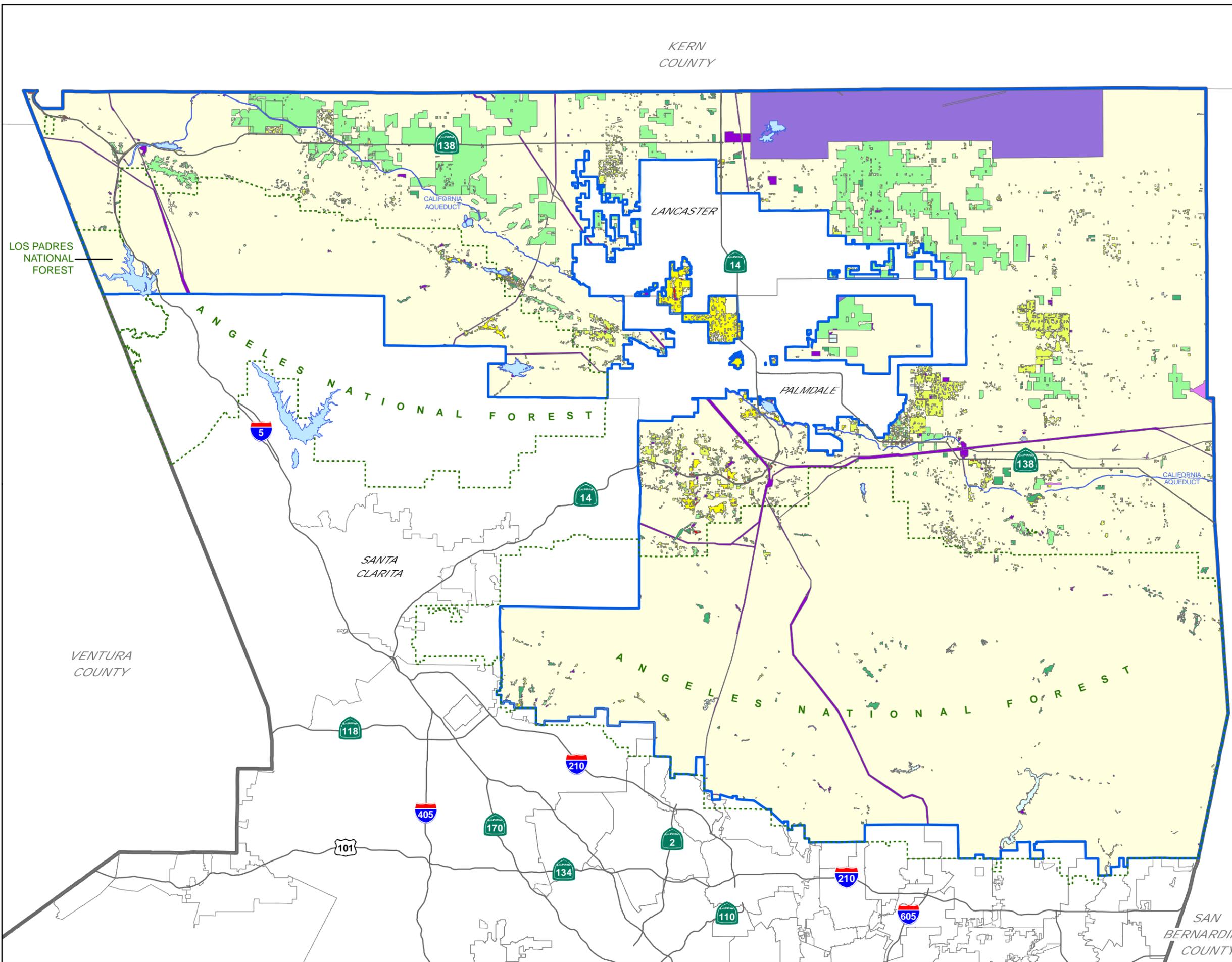
- LEGEND:**
- Residential
 - Commercial
 - Agriculture
 - Industrial
 - Resort & Recreation
 - Watershed
 - Open Space
 - Planning Area
 - Incorporated Cities
 - Lakes and Reservoirs
 - National Forest

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012



Printed on: _____



LEGEND:

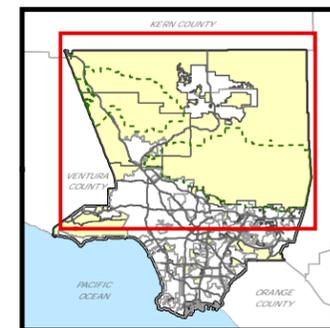
- Urban Residential
- Rural Residential
- Commercial
- Public Facility
- Military Facility
- Industrial
- Airport
- Transportation
- Open Space
- Agriculture
- Vacant Undifferentiated
- Water Undifferentiated
- Planning Area
- Unclassified
- Lakes and Reservoirs
- National Forest

Source: Southern California Association of Governments (SCAG), 2001

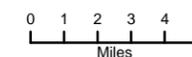
Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
Department of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

VICINITY MAP:



Printed on: _____



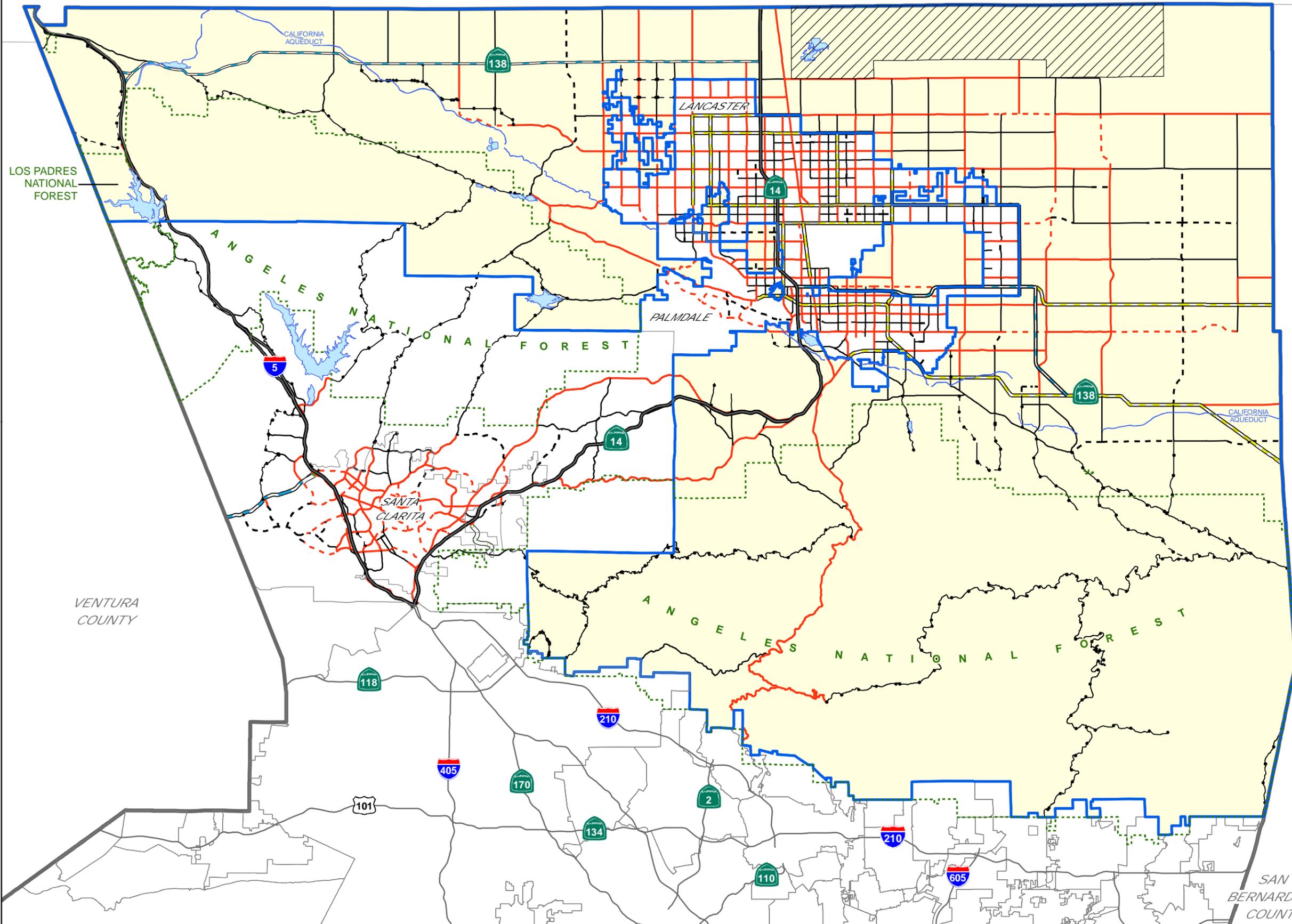
KERN COUNTY

COUNTY OF LOS ANGELES

Town & Country Planning Area

Highway Plan

Map 7-1



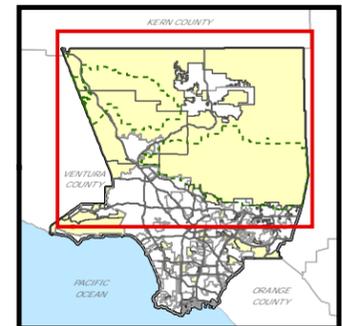
LEGEND:

- Major Highway - Existing
- - Major Highway - Proposed
- Secondary Highway - Existing
- - Secondary Highway - Proposed
- ↔ Limited Secondary Highway - Existing
- - ↔ Limited Secondary Highway - Proposed
- Parkway - Existing
- - Parkway - Proposed
- Expressway - Existing
- - Expressway - Proposed
- Freeway - Existing
- - Freeway - Proposed
- Planning Area
- Unclassified
- ▨ Edwards Air Force Base
- Lakes and Reservoirs
- ⋯ National Forest

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012

VICINITY MAP:



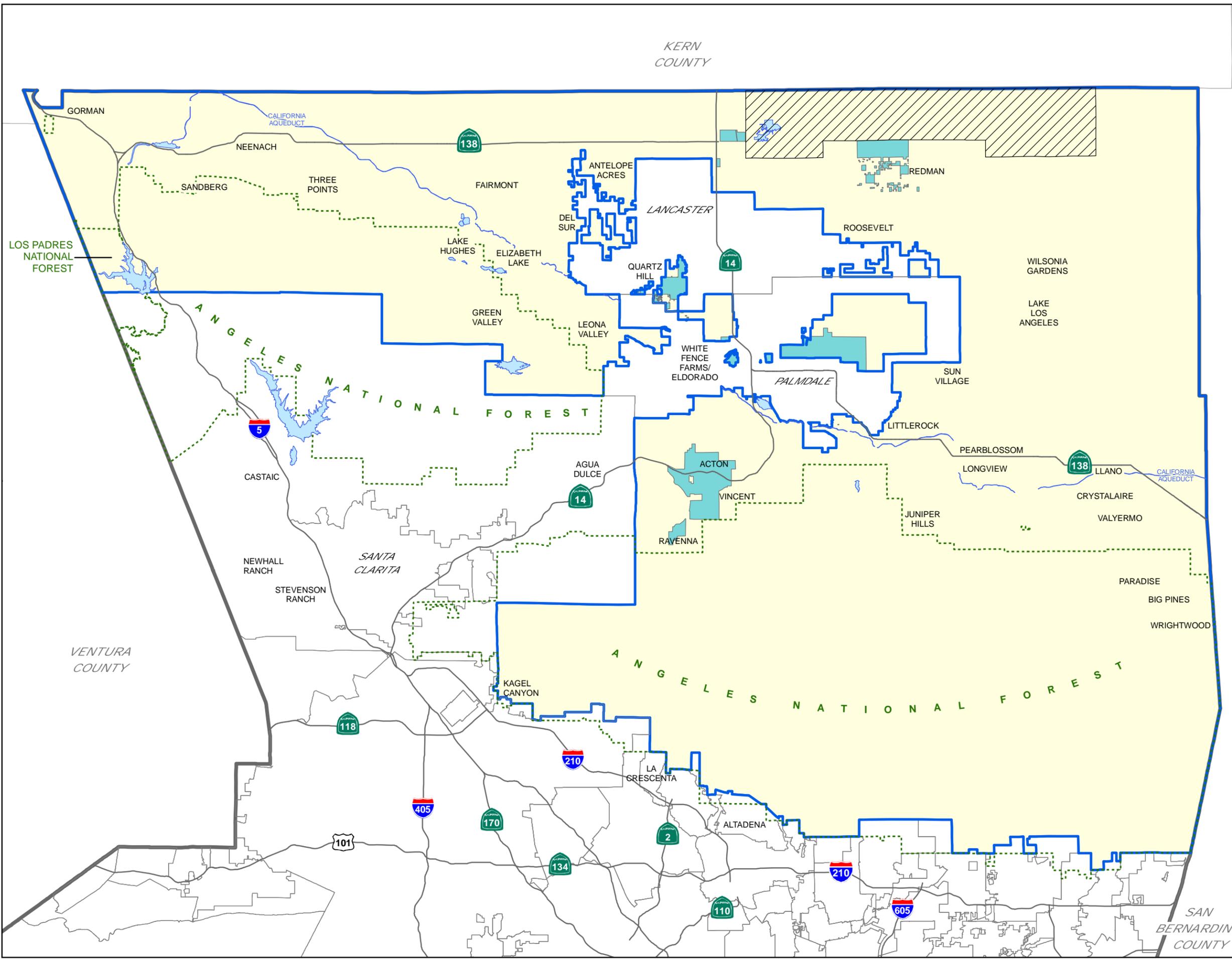
Printed on: _____



Town & Country Planning Area

Sanitation Districts

Map 7-2



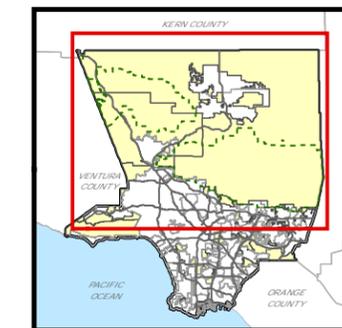
LEGEND:

- Sanitation District
- Planning Area
- Unclassified
- Edwards Air Force Base
- Lakes and Reservoirs
- National Forest

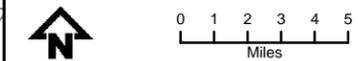
Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

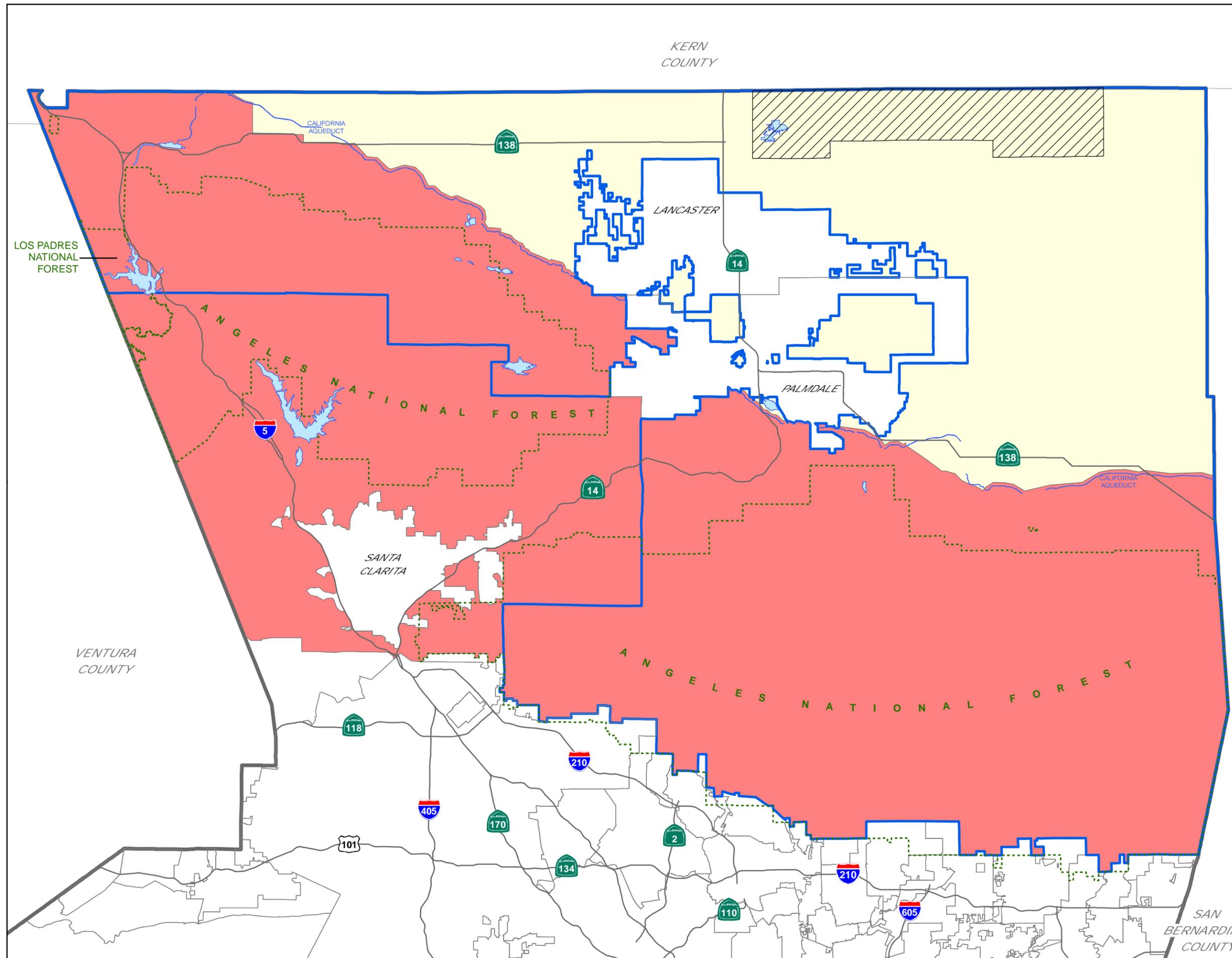
LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012

VICINITY MAP:



Printed on: _____





COUNTY OF LOS ANGELES
Town & Country
Planning Area
Very High Fire Hazard
Severity Zone
Map 7-3

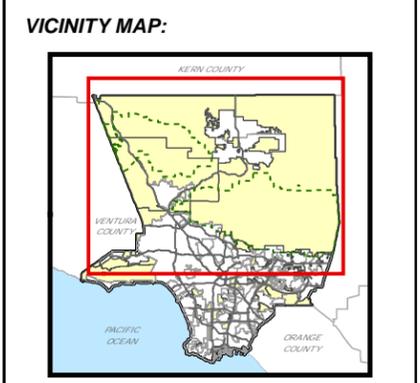
LEGEND:
■ Very High Fire Hazard Severity Zone*
□ Planning Area
□ Unclassified
□ Edwards Air Force Base
□ Lakes and Reservoirs
— National Forest

* Source: Los Angeles County Fire Department, 2005. Data is for unincorporated areas only.

*** Very High Fire Hazard Severity Zone:**
 From Title 32 of the County Code (Fire Code): shall mean areas that are highly vulnerable to wildfire. The designation of such zones shall be made by the Board of Supervisors and shall be based on fuel loading, slope, fire weather and other relevant factors in accordance with Chapter 6.8 of Title 5 of the California Government Code commencing with Section 51175.

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012



Printed on: _____

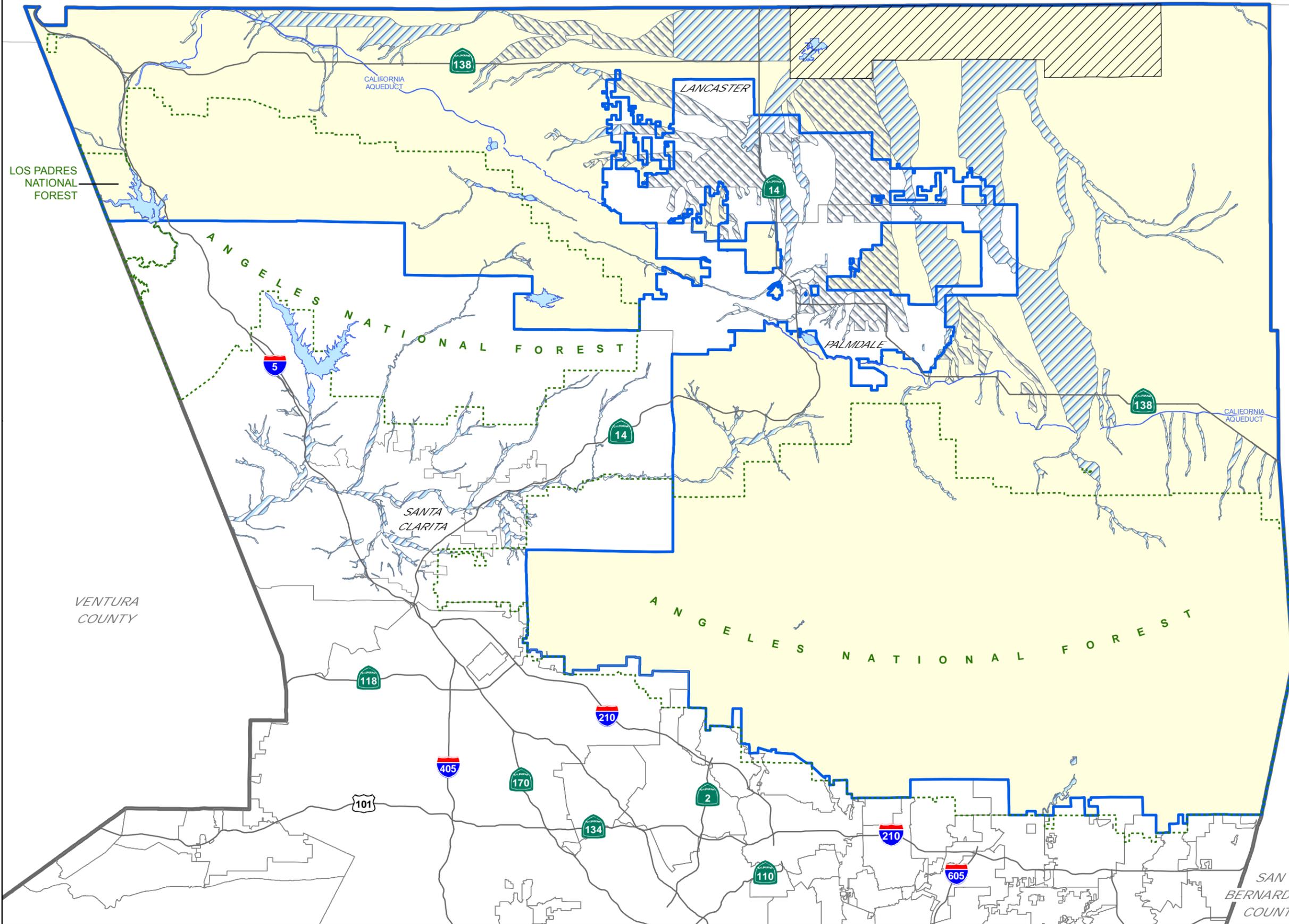
KERN COUNTY

COUNTY OF LOS ANGELES

Town / Country Planning Area

Floodways

Map 8-1



LOS PADRES NATIONAL FOREST

ANGELES NATIONAL FOREST

VENTURA COUNTY

ANGELES NATIONAL FOREST

SAN BERNARDINO COUNTY

- LEGEND:**
- 100-Year Flood Plain *
 - 100-Year Flood Plain (flood depths determined) †
 - 500-Year Flood Plain ‡
 - Planning Area
 - Unclassified
 - Edwards Air Force Base
 - Lakes and Reservoirs
 - National Forest

Source: Federal Emergency Management Agency (FEMA), 1996

* **100-Year Flood Plain:** Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.

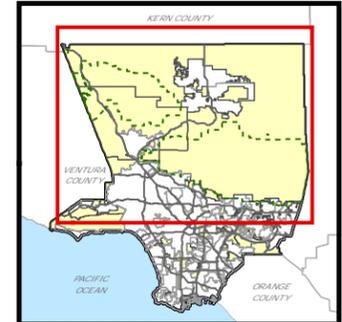
† **100-Year Flood Plain (flood depths determined):** River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones.

‡ **500-Year Flood Plain:** Areas outside the 1-percent annual chance floodplain, areas of 1% annual chance sheet flow flooding where average depths are less than 1 foot, areas of 1% annual chance stream flooding where the contributing drainage area is less than 1 square mile, or areas protected from the 1% annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
Department of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

VICINITY MAP:



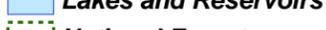
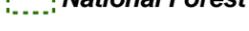
Printed on: _____



**COUNTY OF LOS ANGELES
Town & Country
Planning Area
Airplane Noise**

Map 8-2

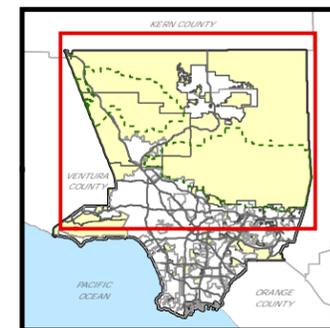
LEGEND:

-  55 dB CNEL Contour
-  60 dB CNEL Contour
-  65 dB CNEL Contour
-  Airport
-  Planning Area
-  Unclassified
-  Edwards Air Force Base
-  Lakes and Reservoirs
-  National Forest

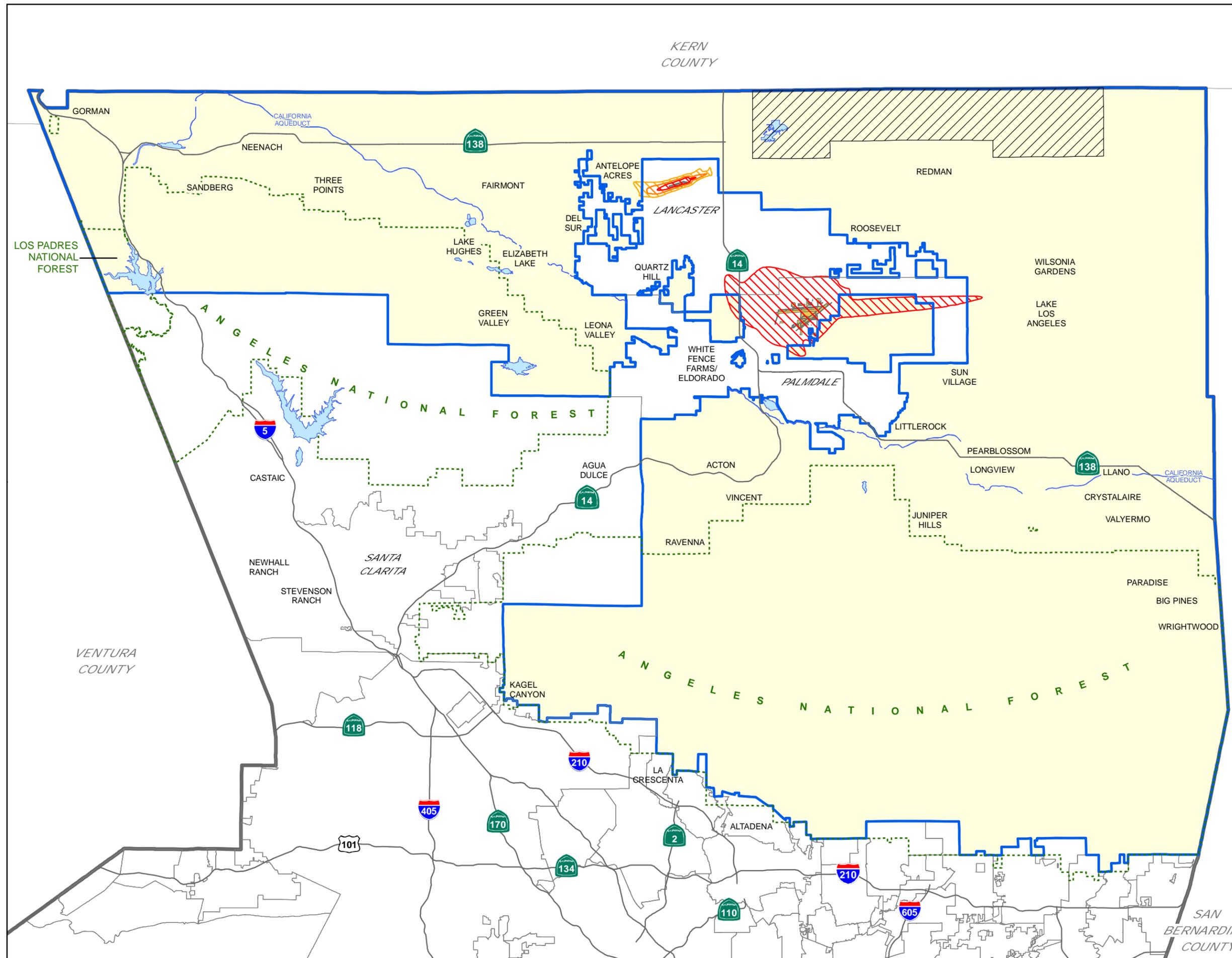
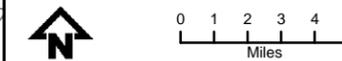
Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

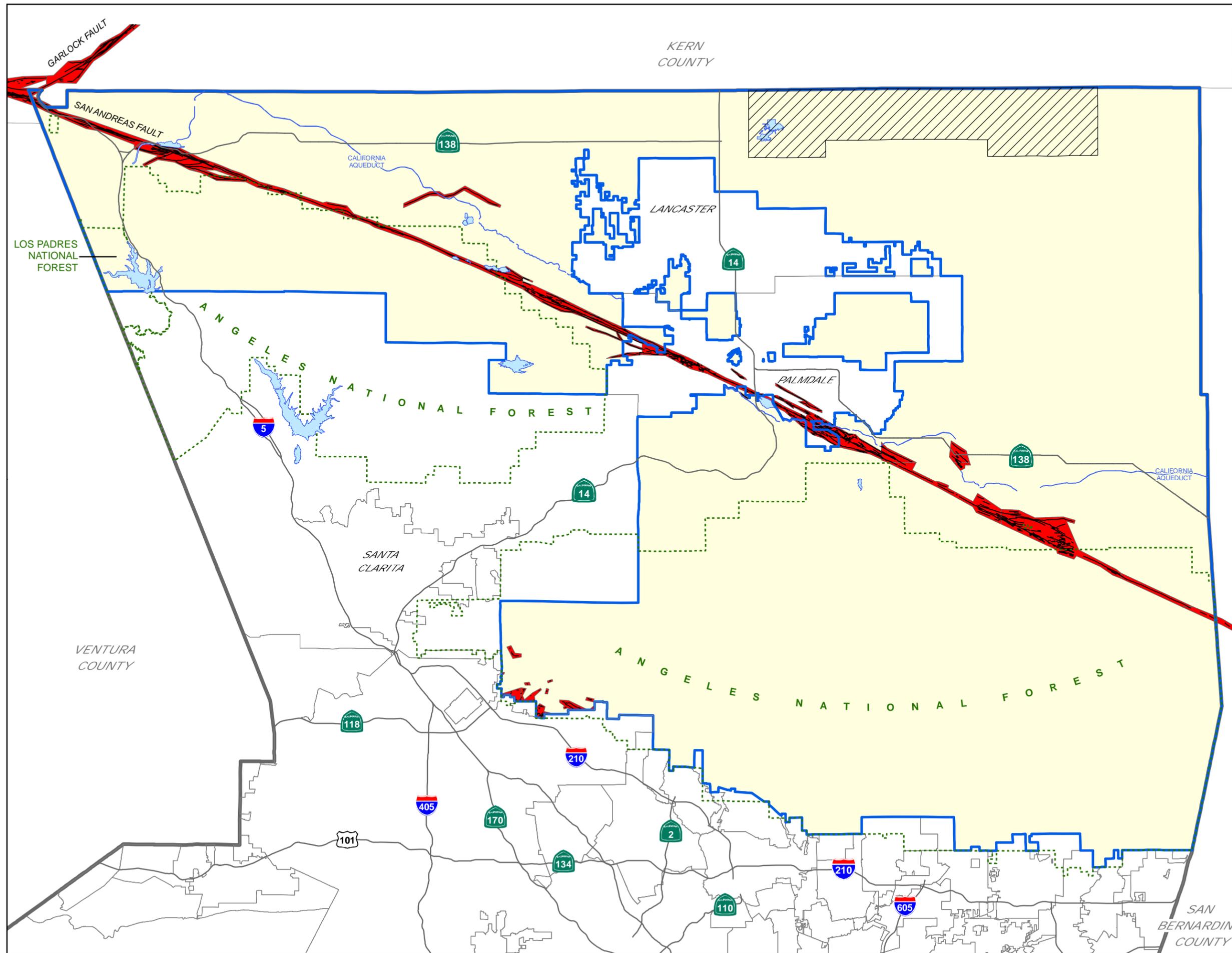
LOS ANGELES COUNTY
Department of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012

VICINITY MAP:



Printed on: _____



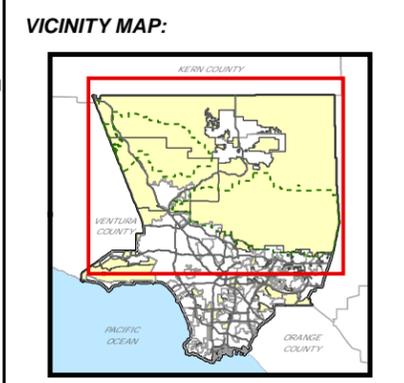


COUNTY OF LOS ANGELES
Town & Country
Planning Area
Fault Zones
 Map 8-3

- LEGEND:**
- Fault Trace *
 - Fault Zone *
 - Planning Area
 - Unclassified
 - ▨ Edwards Air Force Base
 - Lakes and Reservoirs
 - ⋯ National Forest
- * Source: California Department of Conservation, Division of Mines and Geology. Current as of 2003/2004.

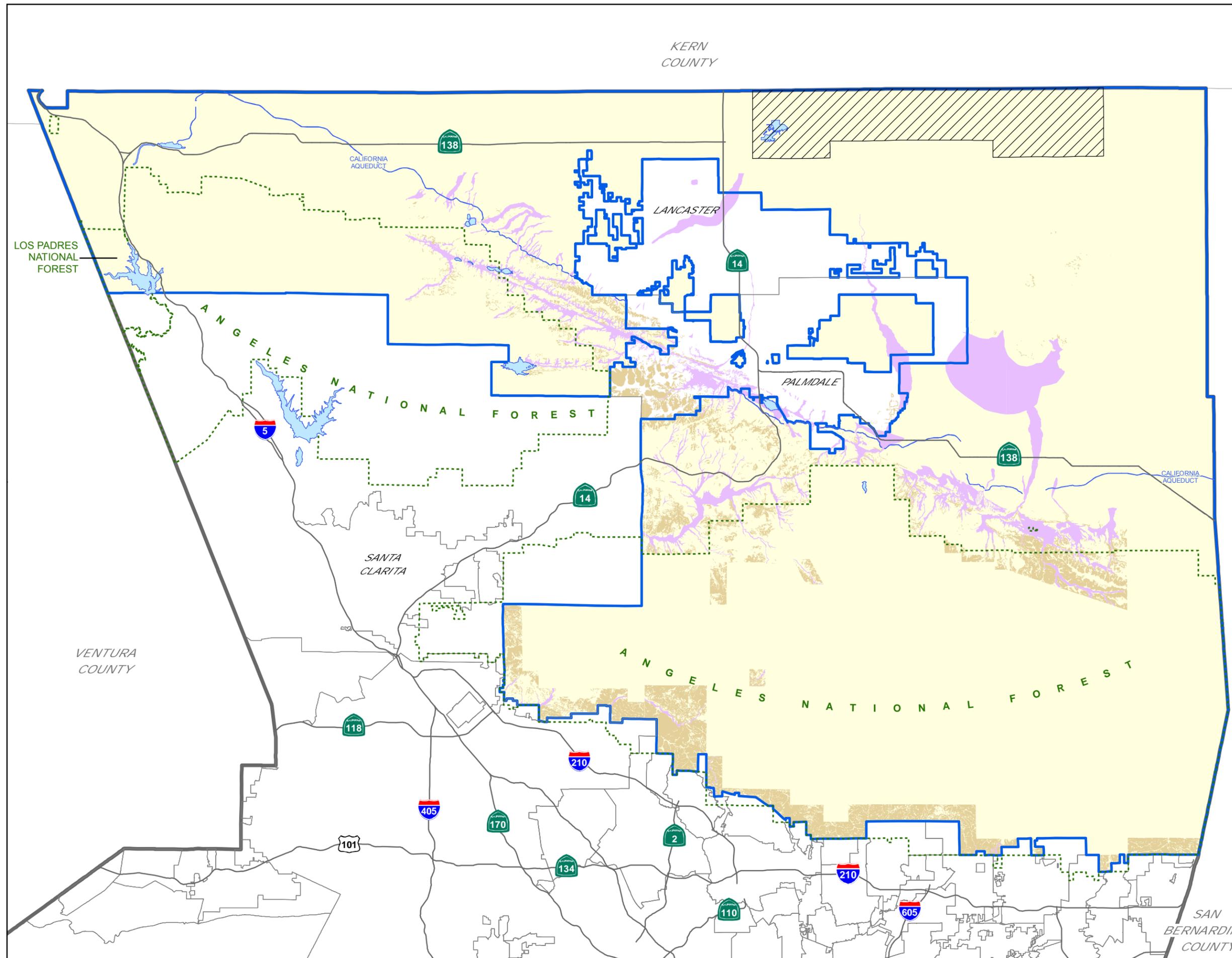
Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision. Information within cities is for reference only.

LOS ANGELES COUNTY
 Department of Regional Planning
 320 W. Temple St.
 Los Angeles, CA 90012



Printed on: _____

**COUNTY OF LOS ANGELES
Town & Country
Planning Area
Liquefaction and
Earthquake-Induced
Landslide Zones
Map 8-4**



LEGEND:

- Liquefaction Zone *
- Earthquake-Induced Landslide Zone †
- Planning Area
- Unclassified
- Edwards Air Force Base
- Lakes and Reservoirs
- National Forest

* **Liquefaction:**
Zones identifying where the stability of foundation soils must be investigated and countermeasures undertaken in the design and construction of buildings for human occupancy. Statutes require that cities and counties use these zones as part of their construction permitting process.

† **Earthquake-Induced Landslides:**
Zones identifying where the stability of hillslopes must be evaluated, and countermeasures undertaken in the design and construction of buildings for human occupancy. Statutes require that cities and counties use these zones as part of their construction permitting process.

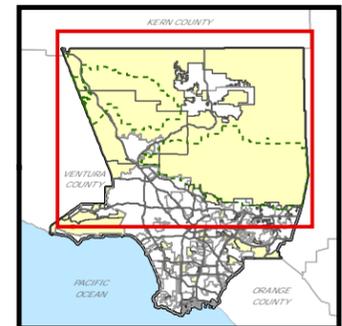
Source: California Department of Conservation, Division of Mines and Geology. Current as of 2003/2004. (Landslide zone data for the majority of the National Forest areas is not available as of January 2008.)

Note: This map is a component of the Los Angeles County Antelope Valley Area Plan Update Program (Town & Country). It is a working draft, subject to revision.

Information within cities is for reference only.

**LOS ANGELES COUNTY
Department of Regional Planning
320 W. Temple St.
Los Angeles, CA 90012**

VICINITY MAP:



Printed on: _____

