

**Exhibit 2**

**Ventura County  
Oak Woodlands Management Plan**



*Coast Live Oak*

*Photo Courtesy of Las Pilitas Nursery*

**July 24, 2007**

Prepared by  
Ventura County Planning Division  
Resource Management Agency

# Ventura County Oak Woodlands Management Plan July 2007

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**Table of Contents**  
**Ventura County**  
**Oak Woodlands Management Plan**

**Summary ..... 1**

**1.0 Current Status..... 3**

    1.1 Oak Woodland Distribution and Extent..... 3

    1.2 Assessment of Existing County Regulations ..... 11

**2.0 Conservation Goals and Program Recommendations ..... 21**

    2.1 Encourage Private Landowners to Protect Oak Woodlands ..... 21

    2.2 Consider Oak Woodlands during Discretionary Permit Review ..... 22

    2.3 Consider Amendments to Tree Protection Ordinance..... 25

    2.4 Biological Data Collection, Analysis and Mapping..... 26

**Attachment A – Stakeholder List ..... 27**

**List of Figures**

Figure 1 – Oak Woodland Distribution and Extent ..... 7

Figure 2 – Tree Permits Issued in Ventura County ..... 16

Figure 3 – Zoning Clearances Issued for Principal Dwellings..... 17

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# Ventura County

## Oak Woodlands Management Plan

### Summary

The Ventura County Oak Woodlands Management Plan (OWMP) has been completed pursuant to guidelines and goals articulated in the California Oak Woodlands Conservation Program, enacted by Chapter 588, Statutes of 2001. This Program constituted formal recognition on behalf of California lawmakers that oak woodlands are a vital statewide resource. As noted in the enabling Oak Woodlands Conservation Act of 2001 (the Act), healthy oak woodlands provide a myriad of benefits. Oak woodlands:

- Provide crucial habitat for hundreds of species, including insects, birds, reptiles, and mammals
- Increase the monetary and ecological value of property
- Reduce soil erosion and enhance water quality
- Help to moderate temperature.

The Act also acknowledges that oak woodlands are being removed throughout the State. The pressures placed upon this resource throughout California include residential, commercial, and industrial development often brought on by continued population pressures, as well as habitat conversion for agricultural production.

In addition to the legislative effort taken to protect oak woodlands vis-à-vis the Oak Woodland Conservation Act, the State took additional protective steps in 2004, with the passage of Senate Bill 1334 (Kuehl), and subsequent modification of the Public Resources Code. As of January 2005, PRC § 21083.4 requires that when a county is determining the applicability of the California Environmental Quality Act to a project, it must determine whether that project “may result in a conversion of oak woodlands that will have a significant effect on the environment.” If such effects (either individual impacts or cumulative) are identified, the law requires that they be mitigated. Acceptable mitigation measures include, but are not limited to, conservation of other oak woodlands through the use of conservation easements and planting replacement trees, which must be maintained for seven years. One notable exemption to this law is for the “conversion of oak woodlands on agricultural land that includes land that is used to produce or process plant and animal products for commercial purposes.”

Due to this statewide attention focused on oak woodlands preservation and a local recognition of their inherent resource value, the Ventura County Board of Supervisors directed the Planning Division to complete an Oak Woodlands Management Plan. In keeping with the primary priorities articulated in the Act (Section 1367 (b)), the County’s Plan includes a discussion of conservation priorities and addresses issues of oak woodland habitat fragmentation. The Plan is divided into two sections.

### Section One – Current Status

This section presents the current status of oak woodland resources in Ventura County, as well as the existing regulatory scheme affecting the management of oak woodlands. Aerial vegetation mapping provided by the California Department of Fire and Forestry in conjunction with the U.S. Forest Service indicates that there are approximately 77,000 acres of oak woodlands and oak forest in Ventura County. Roughly half of this total lies within the Los Padres National Forest and the remaining acreage is on privately owned land.

There are several other notable characteristics of Ventura County's oak woodlands.

- The predominant oak type is coastal oak.
- Only one percent of the total oak woodland acreage contains small trees, indicating a potential problem with oak regeneration/recruitment.
- The majority of oak woodlands are in moderate to dense stands.
- There is a strong correlation between the presence of oak woodlands and wildlife movement areas.

The County has several regulations that can impact the management of oak woodland resources. These include, but are not limited to, the:

- Ventura County General Plan;
- Non-Coastal Zoning Ordinance (Tree Protection Regulations);
- Initial Study Assessment Guidelines for implementation of the California Environmental Quality Act; (CEQA)
- Ventura County Land Conservation Act Guidelines, and
- Subdivision Ordinance.

Many of these regulatory tools are only applicable to projects that require a discretionary permit, (e.g., subdivisions, conditional use permits) and not to projects requiring only a ministerial permit, (e.g., building permits on single family dwellings and many agricultural uses).

## **Section Two – Conservation Goals and Program Recommendations**

Based on the results of the data analysis as well as an assessment of the County's regulatory framework, Section Two identifies conservation goals and proposes several program recommendations that would assist us in meeting these goals. Recommendations include:

- Encouraging private conservation by providing programmatic information and education;
- Ensuring consideration of oak woodlands during discretionary permit review;
- Considering amendments to existing tree permit regulations; and
- Supporting additional data gathering and analysis.

## **Stakeholder Involvement**

Several stakeholder groups, (including growers, ranchers, regulators, subject matter experts, and conservation organizations) were contacted during the drafting of this Plan and asked to provide their feedback and input. The Preliminary Draft of the Plan was placed on the Planning Division web site on April 30, 2007 and stakeholders were asked to review it and comment. A stakeholder meeting was also held on May 16, 2007 to review the Plan and discuss questions and concerns. The list of stakeholders who were asked to review the Plan is attached herein as Attachment A. In addition to the May meeting hosted by the Planning Division, staff also attended several other meetings including one with the Nature Conservancy and associated Santa Clara River stakeholders, a Wetland Taskforce meeting, a meeting on wildlife movement corridors in Ventura County, and two meetings with the Agricultural Policy Advisory Committee (APAC), (June 13, 2007 and July 11, 2007).

# 1. CURRENT STATUS

This section presents data obtained from the State of California regarding the existing distribution and extent of oak woodlands in Ventura County. This section also includes a summary of the County's existing regulatory framework affecting the management of oak woodlands.

## 1.1 Oak Woodland Distribution & Extent – Data Assessment

The information presented below is a synthesis of mapping data gathered by the California Department of Forestry and Fire in 2002 and updated in March 2007. Basic information about the sources of the data, as well as descriptions of oak woodland distribution, type, size, and associated habitats are included herein.

While it's true that these maps and their attendant classification schemes provide adequate data for the purposes of vegetation classification on a statewide basis, the scale of the existing aerial imagery likely contains both errors of commission and omission and thus is insufficient to provide completely accurate data on elements such as understory species, the status of tree recruitment, tree type, and tree size.

### 1.1.1 Data Sources and Procedures

The data used in this Plan were obtained from the California Department of Forestry and Fire Protection (CDF), Fire and Resource Assessment Program (FRAP) in conjunction with the U.S. Forest Service, Region 5 Remote Sensing Lab. The CDF derives its data from the California Land Cover Mapping and Monitoring Program (LCMMP), which is designed to assess changes in California's vegetation. The maps provide monitoring data for regional assessment across ownership and vegetation types. These maps, officially known as "LCMMP Vegetation Maps," are generally referred to as "FRAP Maps."

According to the U.S. Forest Service, these "...vegetation GIS maps are comprehensive databases that meet regional and national vegetation mapping standards." The Forest Service's data documentation further explains that, "the minimum mapping size is 2.5 acres for contrasting vegetation conditions based on cover type, vegetation type, tree cover from above classes, and overstory tree diameter classes.<sup>1</sup> The California Oak Foundation considers these to be currently the most reliable statewide vegetation maps available, as they used much of the same data to generate a 2006 report entitled "Oaks 2040: The Status and Future of Oaks in California."<sup>2</sup>

FRAP maps use the **Classification and Assessment with LANDSAT of Visible Ecological Groupings (CALVEG)** classification system to assess the State's existing vegetation communities for use in resource planning. CALVEG organizes all vegetation by "cover type," which can include shrubs, grass, water, etc.

Only two CALVEG cover types are significant for the purposes of oak woodland identification: hardwood and conifer/hardwood mix. These oak woodland cover types can be further broken down by species of oak trees, (e.g., coast live oak, valley oak, etc.). One such species categorization scheme is called the California **Wildlife Habitat Relationship (WHR)** classification system developed and maintained by the California Department of Fish and Game (CDFG).

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<sup>1</sup> U.S. Forest Service, Region 5 Forest Resource Database Index, Revised National and Region 5 Standards

<sup>2</sup> *Oaks 2040*, October 2006, Tom Gaman and Jeffery Firman, California Oak Foundation

## Wildlife Habitat Relationship (WHR) Types

With staff assistance from CDF, the State's 2002 CALVEG layers were acquired. The CALVEG classifications were then correlated with the applicable WHR types. The WHR types shown below are the predominant types found in Ventura County and include a partial list of corresponding CALVEG species.



*Quercus agrifolia*

**COW – Coast Oak Woodland** - CALVEG species in this classification can include California Bay, California Buckeye, Coast Live Oak

*Photo courtesy of Charles Webber, © 1998 California Academy of Sciences*



*Los Padres National Forest, /Hwy. 33*

**MHC – Montane Hardwood- Conifer** - CALVEG species in this classification can include Bigcone Douglas-Fir, California Bay, and Canyon Live Oak

**MHW – Montane Hardwood** - CALVEG species in this classification can include Bigleaf Maple, California Black Oak, California Buckeye, and Canyon Live Oak

*Photo courtesy of Dan Zukowski*

### 1.1.2 Ventura County Data

The Statewide maps are made up of individual “tiles” or polygons of land area. With assistance from CDF, maps containing the polygons comprising Ventura County were obtained. The oak woodland data included within those maps was analyzed.

#### Countywide Oak Woodland Distribution and Extent

There are just over one million acres of land in Ventura County. Of this total, FRAP classified approximately 76,945 acres as oak woodlands or oak forest. “Woodlands” are considered to be those areas where oaks dominate the landscape, and have at least ten percent canopy cover. The State’s definition of an “oak woodland” in the Oak Woodland Conservation Act, (§ 1361 (h)) is “an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover.” “Oak forests” are dominated by trees, which include, but are not limited to oaks. Oak savannahs, or those areas with less than a 10 percent canopy cover, also exist within the County and are ecologically significant. However, this Plan does not address oak savannahs directly, as they are not the regulatory focus of the Oak Woodland Conservation Act.

It is significant to note that only 49 percent of the oak woodlands in Ventura County are on *privately-owned parcels*, whereas the statewide average is 80 percent.<sup>3</sup> With 46 percent of the County's total land area within the Los Padres National Forest, this statistic is understandable. However, the majority of the coastal oaks, the County's predominant oak type, are located on private land. Not surprisingly, the majority of the Montane hardwood species are on publicly-owned land within the Los Padres National Forest boundary.

### **Oak Woodlands Habitat Associations – Rivers, Wildlife Corridors, and Understory**

Ventura County has mapped several of its key biological resources, including wetlands, water bodies, and wildlife habitat areas. These areas show the identified linkages, corridors, and natural areas that both flora and fauna inhabit and move through. The County's information is not comprehensive or complete; it only represents the known large-scale corridors.<sup>4</sup>

Given that the legislative intent behind the Act emphasizes the "protection and promotion of biologically functional oak woodlands," this Plan includes a map depicting how these biological resources correspond to the mapped oak woodland locations. As one would expect, the majority of the oak woodland south of the Los Padres National Forest boundary is located within the County's two largest watersheds: the Santa Clara River and the Ventura River. In addition, the data also show a connection between oak woodlands and the County's known wildlife habitat areas. (See Figure 1)

Composition of the understory, (i.e., the range of plant species growing beneath the tree canopy) is another important oak woodland habitat consideration – one that is also intrinsically connected to the presence/absence of wildlife and water in a given area. Though the FRAP maps do not provide any quantitative description of the oak woodland understory, evidence suggests that the understory can vary significantly depending on site conditions such as canopy coverage, slope soil characteristics, precipitation, etc. In some instances, it is composed of coastal shrubs that form a dense understory. In other cases, the understory is scattered under and between trees and is composed of grassland and scattered shrubs.

Over the last several years, many vegetation/land cover maps have been created for various parts of Ventura County at different scales and using different vegetation classification schemes. The County Planning Division recently completed a project that merged these various maps into one vegetation map. The County will update this vegetation map as additional data becomes available. One likely update will be in 2008, when a comprehensive mapping effort for the Santa Monica Mountains region is expected to be complete.

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<sup>3</sup> State of California Resources Agency, Wildlife Conservation Board, Oak Woodlands Conservation Program Application and Guidelines, 2001

<sup>4</sup> Liz Chatten, Biologist, Planning Division, Resource Management Agency, Ventura County, 10/06

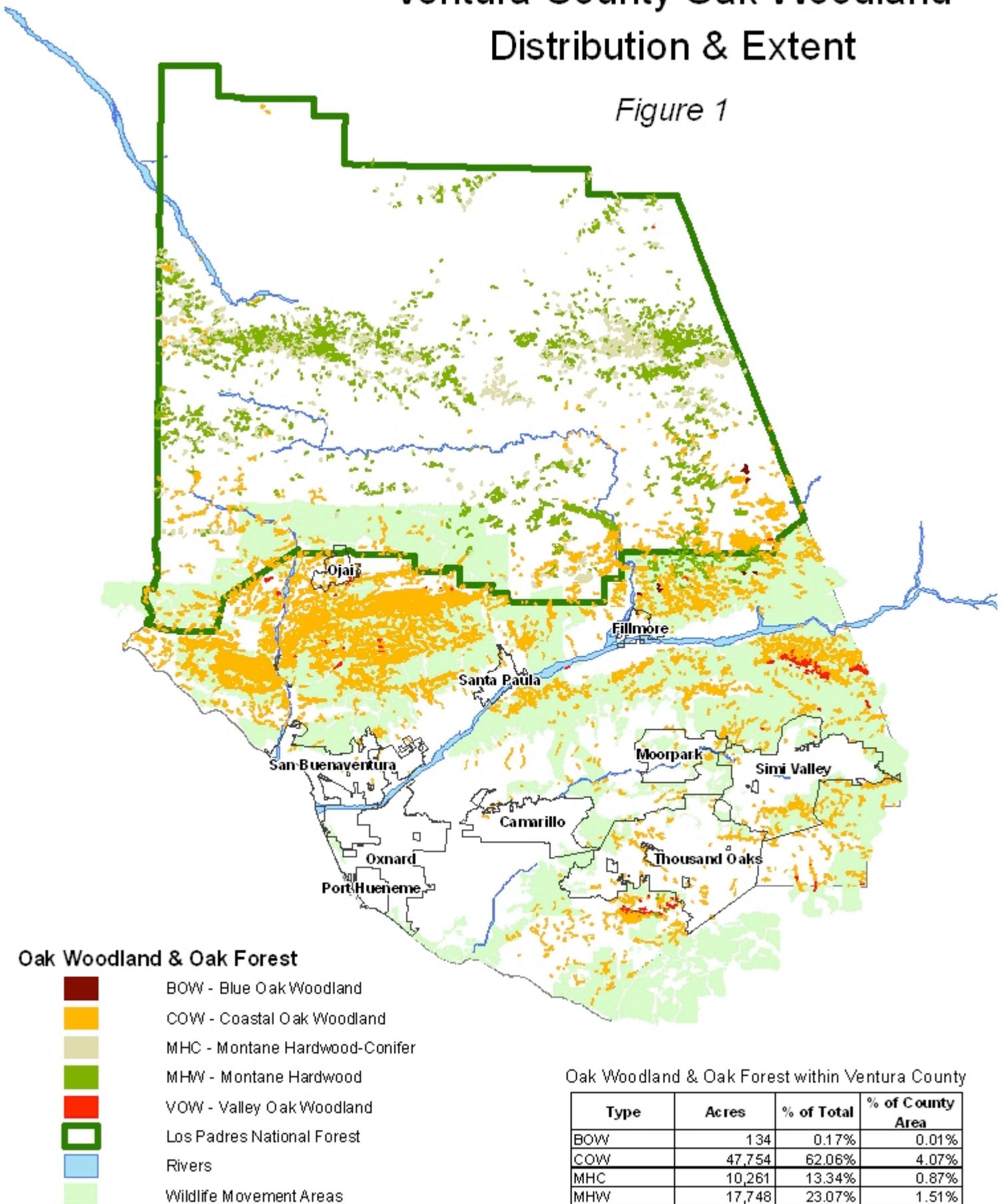
The following datasets were used to create the County's single vegetation data layer:

- LCMMP Vegetation Maps (Land Cover Mapping and Monitoring Program)
- Ventura River Vegetation (Completed for the Ventura County Watershed Protection District by David Magney Environmental Consulting & Geolnsight International, 2003)
- Santa Clara River Vegetation (CH2MHill through Ventura County Flood Control District, circa 1998)
- Calleguas Creek Watershed Vegetation (AMEC, 2000)
- Oak Woodlands Study (David Magney Environmental Consulting, 2000)
- Adenostoma sparsifolia Study (David Magney Environmental Consulting, 2004)
- Los Padres National Forest Vegetation (date unknown)
- Gap Analysis of Mainland California (UCSB, USGS, and CDFG, 1998)

Initial analysis of the County's data layer indicate that both the distribution and extent of oak woodlands in the south half of the County (i.e., land outside the Los Padres National Forest boundary), is similar to the FRAP data.

# Ventura County Oak Woodland Distribution & Extent

Figure 1



Oak Woodland & Oak Forest within Ventura County

Type	Acres	% of Total	% of County Area
BOW	134	0.17%	0.01%
COW	47,754	62.06%	4.07%
MHC	10,261	13.34%	0.87%
MHW	17,748	23.07%	1.51%
VOW	1,050	1.36%	0.09%
<b>Grand Total</b>	<b>76,945</b>	<b>100.00%</b>	<b>6.56%</b>

51% of Oak Woodland & Oak Forest occur on publicly owned parcels while 49% occur on privately owned parcels.

The following table shows the breakdown of Ventura County oak woodlands by WHR type:

**Oak Woodlands & Oak Forest within Ventura County**

Type	Acres	% of Total
Blue Oak (BOW)	134	0.17
Coastal Oak (COW)	47,754	62.06
Montane Hardwood Conifer (MHC)	10,261	13.34
Montane Hardwood (MHW)	17,748	23.07
Valley Oak (VOW)	1,050	1.36
Grand Total	76,945	100.00

In addition to identifying the WHR types present within the County, the WHR size and WHR cover were also analyzed. The former is a method of classifying trees based on size. The measure, “diameter at breast height” (DBH) ranges from <1 inch for a seedling tree to >24 inches for a medium to large tree. The County considered size information to be an important tool to determine if oak trees were regenerating in sufficient numbers to sustain healthy woodland populations.

All over California, certain species of oak trees are not successfully regenerating. Species particularly impacted include the valley oak, blue oak, and coast live oak.<sup>5</sup> Evaluating the distribution and extent of oak seedlings and saplings within the County may help to determine if regeneration is an issue here. Some scientists have found that coast live oak (Ventura County’s most common oak species), is being replaced by the California Bay tree in some parts of the central coast as a result of grazing pressures and lack of successful regeneration, though there is some question if this is the case in Ventura County. Moreover, “coastal oak woodlands are comprised of slow growing long-lives trees, so succession requires a long time...” Development of mature, large trees requires 60-80 years, and most of the trees of the coastal oak woodlands are at least this old.”<sup>6</sup>

WHR cover is a measure of tree density, which is reflected as the percent of land area that is covered with live tree crowns, or “canopy.” These range from 10 percent, (“sparse cover”) to over 60 percent (“dense cover”). This lower limit of 10 percent is important in that it corresponds to the definition of “oak woodland” in the Act (§ 1361 (h))<sup>7</sup>. Therefore, all of the oak woodlands included in the maps herein have a minimum canopy cover of 10 percent of the land area that was mapped.

The following tables summarize the WHR size and WHR cover data provided by FRAP for Ventura County. The most notable conclusions from these data are that the majority of the County’s oak woodlands have moderate to dense covers (i.e., ≥70 percent). Additionally, only one percent of the total acreage of oaks in the County have a DBH smaller than 15 inches, (and 95 percent have a DBH between 15 and 45 inches), possibly indicating that the County is experiencing a problem with oak regeneration. An alternative explanation may be that young oaks may be a small percentage of total cover due to their relative size. Also, since they are often found under the canopy of larger oaks, they may be obscured in an aerial image and may not be accurately detected. Moreover, there is anecdotal information from biologists working in

<sup>5</sup> State of California, Resources Agency, Wildlife Conservation Board website

<sup>6</sup> California Department of Fish and Game, Interagency Wildlife Task Group, V.L. Holland, April 2005

<sup>7</sup> Oak woodlands are defined as an oak stand with a greater than 10 percent canopy cover or that may have historically supported greater than 10 percent canopy cover.”

Ventura County indicating that while valley oaks are experiencing recruitment challenges, coast live oaks are abundant, “with widely dispersed age classes.”<sup>8</sup>

### Tree Canopy (Density) by Land Area (acres)

DENSITY (Cover)	Blue Oak (BOW)	Coastal Oak (COW)	Montane Hardwood Conifer (MHC)	Montane Hardwood (MHW)	Valley Oak (VOW)	Total	Percent of Total
Dense (>60%)		16,605	3,427	6,787	130	26,949	35%
Moderate (40-59.9%)	25	17,579	3,805	5,382	453	27,244	35%
Open (25-39.9%)	80	9,598	1,848	4,498	239	16,263	21%
Sparse (10-24.9%)	29	3,791	1,181	1,080	227	6,489	8%
Total	134	47,753	10,261	17,747	1,049	76,945	100%

### Tree Size by Land Area (acres)

TREE SIZE (DBH)	Blue Oak (BOW)	Coastal Oak (COW)	Montane Hardwood Conifer (MHC)	Montane Hardwood (MHW)	Valley Oak (VOW)	Total	Percent of Total
<15 inches		830	35	233		1,098	1%
15.0 – 29.9 inches	49	10,396	596	4,474	44	15,559	20%
30.0 – 44.9 inches	85	36,511	7,500	12,843	994	57,933	55%
> 45.0 inches		16	2,130	198	11	2,355	5%
Total	134	47,753	10,261	17,747	1,049	76,945	100%

### Fire Impacts

As indicated earlier, the CDF data used for this report is from 2002. In September 2006, a fire, (known as the “Day Fire”) started in the Los Padres National Forest along the eastern edge of the County and burned a total of 162,000 acres. Inevitably, the County’s oak forests in this region were affected although the extent of loss is not known.

Ventura County has experienced one other major fire since 2002. In the fall of 2003, 170,000 acres burned in the east County areas of Piru, Fillmore, and Simi Valley area, including the entire Santa Susana Mountain range. Smaller fires have burned in the Ojai area during 2002 and 2003. As is true of the Day Fire the impacts to mapped oak woodlands are unknown.

However, some east County ranchers have commented that they have seen significant new oak seedling growth as a result of the 2003 east County fire. This phenomenon is also borne out in the scientific literature. A 2001 study on selected central coast plant communities conducted by Cal Poly in San Luis Obispo states that,

“...With most factors affecting growth and development, even with fire there is an ideal frequency range which promotes health in the [coastal live oak woodland] community. If fire is suppressed too long, non-native species overrun the understory, killing oak seedlings and saplings that are not well established. However, if fires occur too frequently, seedlings and saplings are killed off and viable acorns are eliminated from

<sup>8</sup> Written comments received from Ventura County Resource Conservation District, Wildscape Restoration, and Magney Environmental Consulting (May 2007),

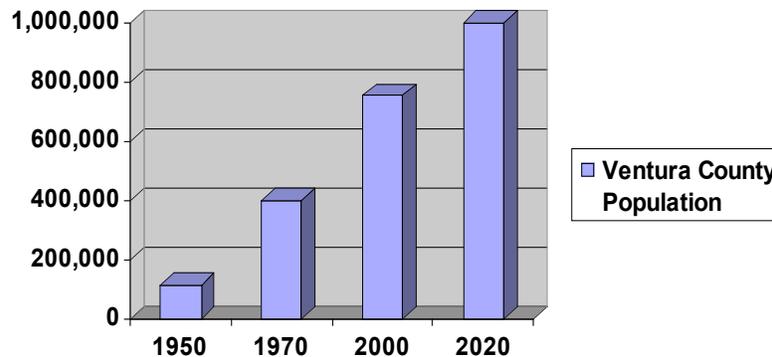
the area, stalling for many years a healthy regeneration of the woodland.<sup>9</sup>

### Historical Oak Woodland Distribution

Though it would be instructive to compare current distribution information with historical data, the County does not have a definitive and/or quantitative way to evaluate the historical distribution and extent of oak woodlands in Ventura County. The California Department of Fish and Game has noted, however that,

“[S]ince the Mission Period, (1769-1824), and especially during the last century, marked changes have occurred in the coastal oak woodlands of California due to the introduction of domestic grazing animals and accompanying land management practices.” The resulting change in plant species, (from native perennials to introduced annuals), “may have resulted in young oaks being out-competed for limited supplies of nutrients and moisture.”<sup>10</sup>

Analyzing population growth and density in the County over the last fifty years may also provide clues given that historical population growth has been a significant factor in oak woodland conversion. Between 1950 and 2003, the County’s population grew by over 500% (from approximately 115,000 to 753,000).<sup>11</sup> Some estimate that the County’s population will reach one million people by 2020.<sup>12</sup> Though this is a significant population milestone, it reveals a slower growth rate than occurred prior. It nevertheless requires adding on average, another 145,000 people per decade to the County.



The creation of the Santa Monica Mountains National Recreation Area (SMMNRA) in 1978 also affected the patterns of oak woodland preservation in the County. The SMMNRA, managed by the National Park Service, comprises 154,000 acres within the Santa Monica Mountains making it is the largest urban national park in the United States. However, significant portions of the Santa Monica Mountains remain in private hands and development in these areas may compromise the habitat viability of the protected areas in the future.

The impact of these growth rates and conservation efforts on oak woodlands has likely been mixed. Population growth rates of 550% during a 50-year period most assuredly resulted in the

<sup>9</sup> “Cal Poly Land Project, Faculty Seminar 2000-01. Section VI. Plant Communities (C) Coastal Live Oak Woodlands

<sup>10</sup> CDFG, Interagency Wildlife Task Group, V.L. Holland, April 2005

<sup>11</sup> Southern California Association of Governments 2001, “Population Growth in the SCAG Region 1950-2000.”

<sup>12</sup> Ventura County Civic Alliance Report; Spring 2004

conversion of oak woodlands into urban developments -- especially in areas like Oak Park, Thousand Oaks, Simi Valley, and Ojai. In addition, land throughout the Santa Clara River Valley that is now used for agriculture probably contained significant oak woodlands, including those along riparian corridors. Efforts to direct urban growth into cities and the intentional creation of open space areas have perhaps slowed the loss of oak woodlands. However, development patterns within the County indicate that there is continued pressure to develop presently vacant land and to expand agricultural production into hillsides.

## **1.2 Assessment of Existing County Regulations for Oak Woodlands Management**

The ultimate goal of this assessment is to determine how best to meet the intent of the State's Oak Woodlands Conservation Act. The Act articulates several goals for an Oak Woodlands Management Plan. Among them:

- (1) Support and encourage voluntary, long-term private stewardship and conservation of oak woodlands by offering landowners financial incentives to protect and promote biologically functional oak woodlands over time;
- (2) Provide incentives to protect and encourage farming and ranching operations that are operated in a manner that protects and promotes healthy oak woodlands; and
- (3) Encourage local land use planning that is consistent with the preservation of oak woodlands.

There are several County policies, ordinances, and programs (collectively referred to as regulations) that potentially relate to the management of oak woodlands. These include, but are not limited to, the

- Ventura County General Plan
- Non-Coastal Zoning Ordinance
- Coastal Zoning Ordinance
- California Environmental Quality Act (CEQA) Initial Study Assessment Guidelines.

### **1.2.1 Ventura County General Plan**

The Biological Resources, Scenic Resources, and Land Use sections of the General Plan provide the most direct link to oak woodlands management. Each of these three sections uses different terms to identify the physical feature that is being managed, (e.g., "significant biological resources," "visual resources," "open space"). It is the definition and interpretation of these terms that can determine the degree to which these policies and programs can be used to manage oak woodlands.

#### **Biological Resources**

Within the Biological Resources section, the stated goal is:

"To preserve and protect significant biological resources in Ventura County from incompatible land uses and development. Significant biological resources include endangered, threatened or rare species and their habitats, wetland habitats, coastal habitats, wildlife migration corridors and locally important species/ communities."

Though oak species have not been designated as endangered, threatened, or rare by the State of California, it is clear that oak woodlands are present in significant quantities along several wildlife migration corridors throughout Ventura County, including those in the Ojai Valley, the Santa Clara River Valley, the Santa Monica Mountains, and the open space east of the city of Simi Valley (see Figure 1).

The U.S. Forest Service cites the importance of oak woodlands to wildlife.

“Coast live oak woodlands are some of the most important habitats to wildlife in California. These communities are preferred habitat for black bear and [they] support a number of bird species including the federally endangered least Bell’s vireo and least tern.”<sup>13</sup>

A policy in the County’s General Plan states that,

“*Discretionary development* shall be sited and designed to incorporate all feasible measures to mitigate any significant impacts to biological resources. If the impacts cannot be reduced to a less than significant level, findings of overriding considerations must be made by the decision making body.”

Therefore, the *potential* exists for the County to protect oak woodlands and/or mitigate their loss if the County considers them to be a “significant biological resource” vis-à-vis their connection to wildlife migration corridors **and** determines that there have been “significant impacts to the resource.”

In addition to potential protections conferred by their connection to wildlife migration corridors, several Area Plans (Ojai, Lake Sherwood, Oak Park, and Thousand Oaks), provide varying levels of protection specifically for oak species. The Thousand Oaks Area Plan includes protection of significant stands of “major plant communities of Thousand Oaks, including southern oak woodland and oak savannah.” Similarly, the Ojai Area Plan explicitly defines “Oak Woodlands” as a “Locally Important Plant Community” – a designation that can be made by a qualified biologist on a project basis.

Though not a protection conferred directly to oak woodlands, the General Plan contains a policy that requires *discretionary* development to maintain a 100-foot buffer from significant wetlands. Because these riparian areas sometimes contain oak woodlands, some woodland areas in the County have benefited from similar protection.

The potential to protect oak woodlands as a biological resource under the policies of the County General Plan, however, is limited to *discretionary* projects. If a development project is *ministerial*, the County is not required to formally consider whether it may impact wildlife migration corridors or Locally Important Plant Communities. Developments such as single-family dwellings on existing lots, most agricultural uses, and accessory buildings, are typically ministerial. Overall, the majority of development-related permits issued by the County are ministerial.

Most development in the Coastal Zone, however, is considered to be discretionary and as such may provide more opportunities to preserve oak woodlands. The Coastal Area Plan and other County policy documents contain a classification referred to as “Environmentally Sensitive Habitat Area,” which offers potential protection of oak woodlands (see Section 2.2.3 for further

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<sup>13</sup> U.S. Forest Service, “Quercus Agrifolia: Management Considerations,” 2002

discussion). The County created a Santa Monica Mountains overlay zone within the Coastal Zone, formally acknowledging that the,

“Santa Monica Mountains are a coastal resource of statewide and national significance. The mountains provide habitats for several unique, rare or endangered plant and animal species. Such habitats may be easily damaged by human activities. Therefore, development in the overlay zone area requires case-by-case consideration...”

### **Scenic Resources**

Scenic resources fall into two main categories: Scenic Highway Area and Scenic Resource Area. The goals of both categories are basically to preserve and protect the significant open views and visual resources of the County, including those along designated scenic highways, lakes, and other scenic areas. Currently, only Highway 33 north of the Ojai Valley has been designated as a Scenic Highway, though several others are proposed. Additionally, four lakes within the County and major ridgelines within the Ojai Valley area have been designated as Scenic Resource Areas.

Within designated Scenic Highway Areas, most development and vegetation removal requires a discretionary permit. Within a designated Scenic Resource Area, any development that results in 50 cubic yards of grading or more requires a discretionary permit; but vegetation removal does not require a discretionary permit.

As with biological resources, protective policies and programs are only applied to discretionary projects. In addition, the *potential* to protect oak woodlands as a scenic resource can only be considered if the oak woodland is visible to the public as a whole (i.e., visible from a public road or from public lands).

### **Land Use**

The purpose of the Land Use chapter is to establish goals and policies that guide future growth and development in the County. It also specifies land use designations, including one for Open Space. The Open Space designation encompasses land used for several purposes, many of which are potentially helpful for oak woodland preservation. These land uses include:

- Preservation of plant and animal life;
- Space for outdoor recreation, including areas of outstanding scenic historic and cultural value;
- Areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors;
- Areas that promote the formation and continuation of cohesive communities by defining boundaries and helping to prevent urban sprawl; and
- Areas that promote efficient municipal services and facilities by confining urban development to defined development areas.

The minimum parcel size for Open Space designated properties is ten acres and the maximum building coverage is five percent of the lot area. Approximately 89% of the County’s remaining oak woodlands south of the Los Padres National Forest are located within areas designated as Open Space. In some cases, Open Space policies have allowed the County to work with project applicants to steer construction away from oak woodlands located on Open Space parcels.

Three other notable County General Plan land use policies have perhaps reduced the severity of habitat fragmentation, which occurs with higher density urban development. These include the County SOAR ordinance, the Guidelines for Orderly Development, and Greenbelt Agreements. SOAR (“Save Open Space and Agricultural Resources”) essentially requires the countywide electorate to approve any amendment to Agricultural, Open Space or Rural designated land to another land use designation. The Guidelines for Orderly Development encourage development to occur within incorporated cities rather than the unincorporated area. Seven existing Greenbelt Agreements forbid annexations and urban development within specified greenbelt areas. Greenbelts agreements have been adopted for the following areas:

- Between Ventura and Santa Paula
- Between Santa Paula and Fillmore
- Between Fillmore and the Los Angeles County line (excluding the community of Piru)
- Between Ventura and Oxnard (west of Oxnard to Harbor Blvd.)
- Between Oxnard and Camarillo
- East of Camarillo to the westerly portion of the Santa Rosa Valley
- Tierra Rejada Valley

### **1.2.2 Non-Coastal Zoning Ordinance – Tree Protection Regulations**

Ventura County’s Tree Protection Regulations, which are part of its Non-Coastal Zoning Ordinance, provide the most direct link to oak woodland protection. However, like many tree protection ordinances throughout the State, the focus is on individual trees. That said, the stated goal of the Regulations acknowledges the value of “an optimal cover of healthy trees.”

“Ventura County recognizes that trees contribute significantly to the County’s unique aesthetic, biological, cultural, and historical environment as well as its air quality. It is the County’s specific intent through the regulations to encourage the responsible management of these resources by employing public education and recognized conservation techniques to achieve an optimal cover of healthy trees of diverse ages and species while practically reconciling conflicting demands for alternative uses.”

The regulations identify several species of protected trees, including all species of oaks that have reached a minimum circumference of 6.25 to 9.5 inches depending on trunk configuration. Administration of the Tree Protection Regulations is accomplished through the issuance of both ministerial and discretionary tree permits. Permits are issued for activities including tree removal, trimming, and relocation. Generally, the tree regulations prohibit any person from altering, felling, or removing a protected tree without obtaining a permit; however, there are exceptions when trees pose immediate hazards to people and/or structures.

The regulations require those seeking either a *ministerial* or *discretionary* tree permit to provide documentation justifying why individual trees need to be removed. Justifications may include threats posed to people or structures and interference with public utilities and sewer lines. In addition, if a tree(s), “denies reasonable access” to the property for construction, maintenance, or for its approved use, the property owner may be granted a permit for tree removal. The regulations also require a “one-for-one” offset for discretionary tree permits where more than three trees are affected. Removal of any tree classified as a “heritage tree” also requires a

discretionary permit. These are trees of any species that measure 90 inches in circumference or greater.

The following table summarizes the number of oak trees that can be felled or removed with either a ministerial or discretionary permit. (Any single oak tree that is also classified as a Heritage Tree requires a discretionary permit before it can be felled or removed.)

<b>Application type</b>	<b>Number of Oaks</b>	<b>Permit type required</b>
<b>Agricultural</b>	<b>Up to 5 oaks</b> in any 12-month consecutive period	<b>No permit required</b>
	<b>6 – 10 oaks</b> in any consecutive 12-month period	<b>Ministerial Permit required</b>
	<b>11-25 oaks</b> in any consecutive 12-month period with field inspection by Planning Div.	<b>Ministerial Permit required</b>
	<b>&gt; 25 oaks</b>	<b>Discretionary Permit Required</b>
<b>Non-Agricultural</b>	<b>Up to 3 oaks</b> (cumulative, not annual)	<b>Ministerial Permit required</b>
	<b>&gt; 4 oaks</b> (cumulative, not annual)	<b>Discretionary Permit Required</b>

The map in Figure 2 shows the locations of tree permits issued in unincorporated Ventura County from January 2004 – November 2006. Three areas contain the vast majority of the 245 tree permits issued during this time: the Ojai Valley (171), Lake Sherwood (40), and Bell Canyon (29). Though the majority of permits were issued for tree removal, some permits were specifically issued for trimming or relocation.

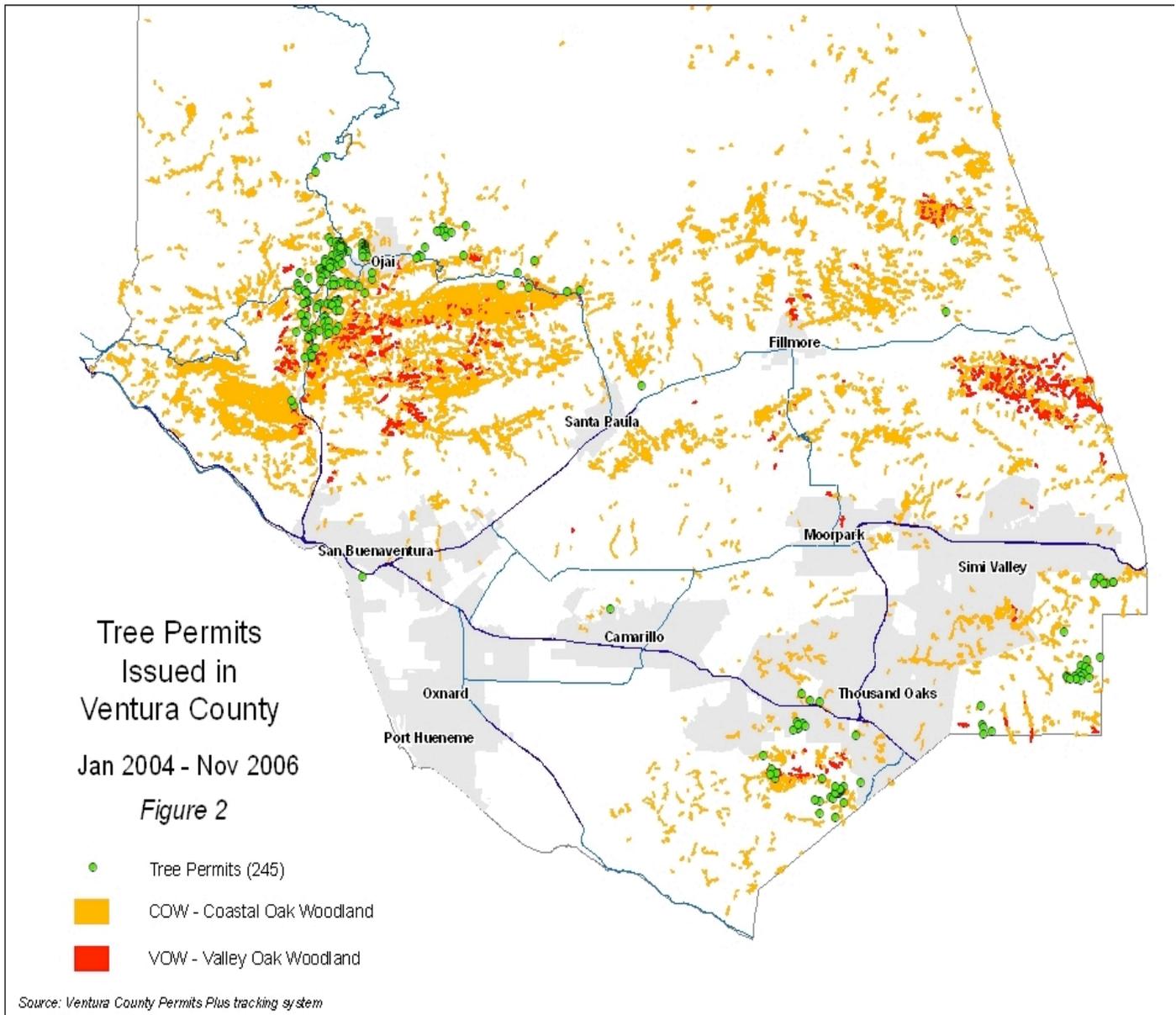
Of the 171 permits issued in the Ojai Valley, only two were discretionary. In Lake Sherwood, three of the 40 permits were discretionary, and in Bell Canyon, one was discretionary. While this indicates that applicants are cutting down fewer trees than they could if they applied for discretionary permits, the ministerial nature of these actions means that County staff does not necessarily have the latitude to assess any cumulative impacts.

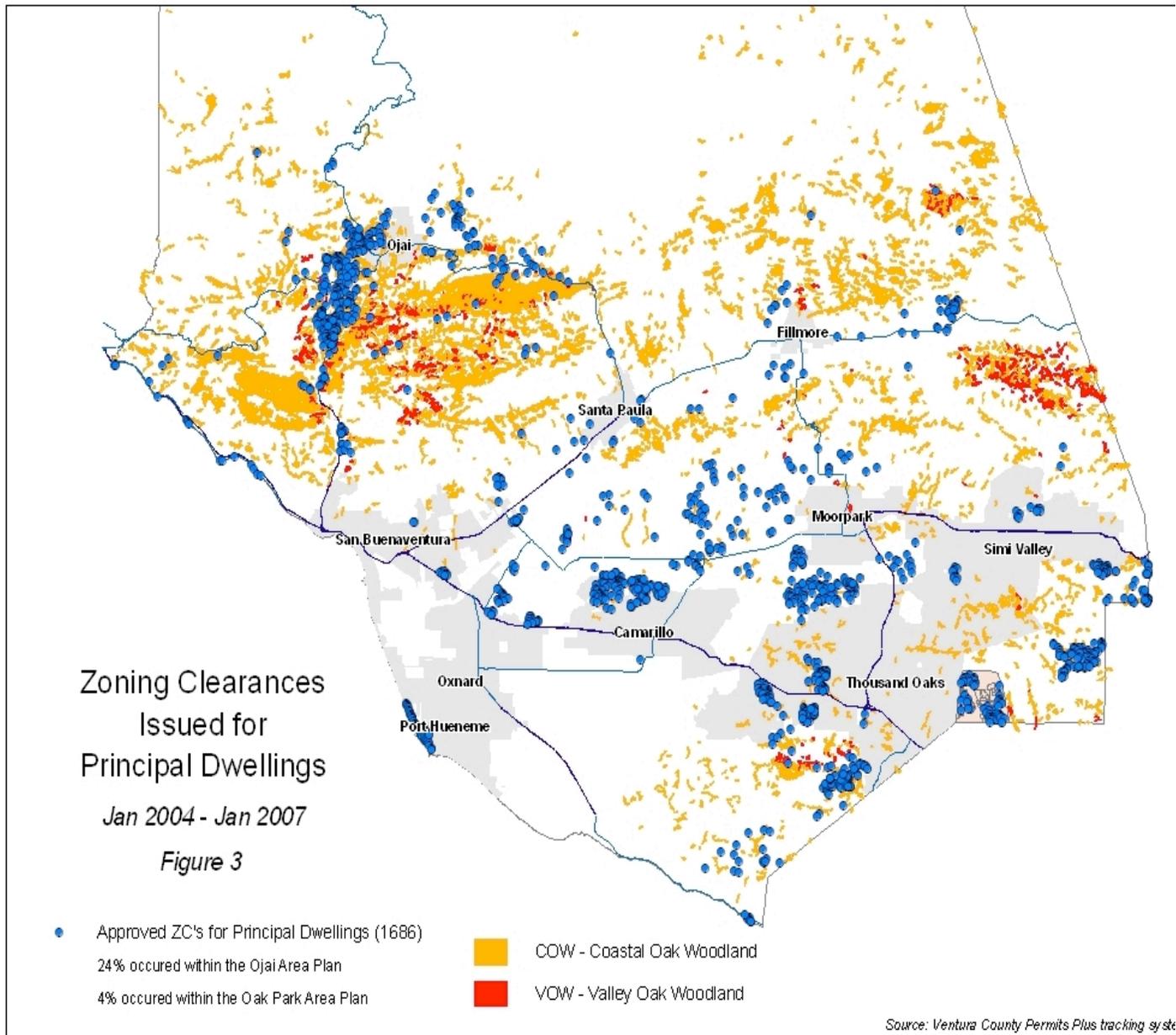
The data also show that of the 245 total tree permits issued during this time, approximately 70% were issued on land designated as “Existing Community,” (e.g., Oak View, Meiners Oaks, etc.). The remaining 30% were issued on land designated as Rural (21%), Open Space (11%), or Agricultural (1%).

Finally, despite their stated intent (i.e., to “achieve an optimal cover of healthy trees of diverse ages and species”) the regulations do not define what “optimal cover” is nor do they require that County staff consider it when issuing a ministerial tree permit. Rather, the regulations focus largely on the individual tree(s) that an applicant wants to alter or remove.

It should be noted that the winter of 2004 – 05 was among the wettest in Ventura County history; hence storm damage may have accounted for some of the tree removal in the Ojai Valley. However, there appears to be a strong correlation between tree permits and zoning clearances for single-family dwellings (see Figure 3) indicating that residential construction accounted for at least a portion of the tree removal. The County’s tree permit documentation

predating 2004 is not reliable so it was not possible to check another time interval to see if it yielded similar results.





### 1.2.3 Coastal Zoning Ordinance

Though the majority of existing oak woodlands in Ventura County lie outside the coastal zone, the Santa Monica Mountains (part of the South Coast sub area of the County's Coastal Zone) contain significant oak woodlands. Unique to the Coastal Zoning Ordinance (and the Coastal Area Plan) is a definition of Environmentally Sensitive Habitat Area (ESHA).

ESHA is defined as, "Any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or harmed by human activities and development..."

Although Ventura County has not explicitly identified oak woodlands in this area as "environmentally sensitive" or updated its ESHA map since 1982, the State of California has determined that oak woodlands within several Santa Monica Mountain locations in Los Angeles

County meet the ESHA definition. Ventura County's Coastal Zoning Ordinance states that, "If a new sensitive habitat area is identified by the County on a lot or lots during application review, the provisions of [ESHA] shall apply."

In practice, when applications are received for Coastal Zone permits (e.g., for residential construction, subdivisions), County staff will often rely on the information contained in the biological report prepared for the project. Therefore, if oak woodlands are found to be present on a development site, the oak woodlands are regarded as "environmentally sensitive habitat" and the County's Coastal Zone ESHA protection policies and development standards would be applied.

#### **1.2.4 Administrative Supplement to CEQA & Initial Study Assessment Guidelines**

The County of Ventura has created two guidance documents to assist in its environmental evaluation and implementation of the California Environmental Quality Act (CEQA); the Administrative Supplement to State CEQA Guidelines and the Initial Study Assessment Guidelines.

The Administrative Supplement identifies the specific procedures and provisions adopted by the County to implement and comply with CEQA. It discusses issues such as cumulative impact assessment and summarizes the general environmental review process.

Similarly, the Initial Study Assessment Guidelines are a tool used to ensure that all potential environmental impacts are considered early during the review of *discretionary* projects. Of particular relevance to oak woodlands, the Initial Study Assessment requires County staff to determine potential impacts to the County's biological resources, (i.e., coastal habitats, wildlife migration corridors, and locally important species and communities) and to assess the potential *cumulative* impacts to those resources posed by a given project.

"'Cumulative impact' is the adverse change to the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects....Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

The existing Initial Study Assessment Guidelines currently list the following as "Significant Biological Resources"

- Habitats of endangered, threatened, or rare species
- Wetland habitats
- Coastal habitats
- Migration corridors for fish or wildlife
- Locally important species/communities

To assist with an Initial Study Assessment, the Guidelines provide "Threshold Criteria," for each biological resource. For example, the Guidelines' threshold criterion for assessing impacts to coastal habitat reads:

"According to the State Coastal Act and the County's Local Coast Program, virtually any direct reduction of, or indirect impact to, a Coastal Habitat could be considered significant." The Guidelines define "Coastal Habitat" as "Environmentally

sensitive habitat areas in the Coastal Zone, including coastal waters, intertidal areas, estuaries, lakes, wetlands and sand dunes which support plant or animal life.”

The Guidelines also contain important guidance for determining environmental impacts to “Migration Corridors” and “Locally Important Species/Communities.” The Threshold Criteria direct that a biologist must determine whether an area experiences recurrent wildlife movement. Similarly, in the case of Locally Important Communities, “determinations of significance must be made by a qualified biologist on a case-by-case basis.”

The “Scope of Initial Studies for Biological Resources” section (Attachment 2A of the Guidelines), is more explicit, requiring a biologist to consider, “*Areas with quality examples of plant and animal communities characteristic of, or unique to, the County and region (e.g., oak trees, oak forest, oak savannahs, raptor nesting areas),*” and to “*consider all potential impacts, disturbance to, or loss of, a known resource through human activities associated with, or attendant to, the project.*” Impacts from construction, grading, and increased human presence can be included.

Although the County’s Administrative Supplement and the Initial Study Assessment Guidelines are useful documents in evaluating project impacts on “locally important species and communities” and “coastal habitats” (which may indirectly encompass oak woodlands), these documents don’t currently provide explicit or specific guidance in evaluating project and cumulative impacts to oak woodlands.

### **1.2.5 Ventura County Land Conservation Act Guidelines**

The Oak Woodlands Conservation Act emphasizes “voluntary, long-term private stewardship and conservation,” and encourages farmers and ranchers to “operate in a manner that protects and promotes healthy oak woodlands.” Consistent with these goals, the County’s Land Conservation Act Guidelines provide an important tool for working with these landowners to protect remaining oak woodlands. LCA goals include:

- Allowing compatible uses within agricultural contracts that do not hinder or compromise the existing or potential agricultural productivity of agricultural land;
- Helping preserve wildlife habitat areas through open space (wildlife habitat) LCA Contracts; and
- Allowing compatible uses within open space LCA Contracts that do not adversely affect the preservation of wildlife habitat areas.

The LCA Guidelines specify that Open Space Contracts (OS/LCA Contract) with private landowners can also include non-profit conservation organizations. In return for restricting the land for open space uses (wildlife habitat area) the property is subject to favorable property tax assessments, in accordance with the California Revenue and Taxation Code. Also helpful is the flexibility to determine the minimum Contract Area for OS/LCA Contracts on a case-by-case basis.

These Guidelines were revised in July 2006. To date, there have not been any OS/LCA Contracts issued.

### **1.2.6 Parcel Map Waiver/Conservation Subdivision**

In 2005, the County amended its Subdivision Ordinance to allow for Parcel Map Waivers and Conservation Subdivisions. These occur when an existing legal lot is divided into two new legal lots or when a Lot Line Adjustment creates two new lots and the two new lots qualify as a Conservation Parcel and a Non-Conservation Parcel. The Conservation Parcel must:

- Contain one or more Significant Biological Resources, as defined in the Ventura County Initial Study Assessment Guidelines;
- Be acquired and maintained as permanent, natural open space by a Conservation Organization (as defined by Ordinance); and
- Have recorded on it an easement and/or deed restriction in favor of the County of Ventura committing the property to natural resource conservation use in perpetuity.

A Conservation Parcel may be smaller than the minimum lot size required and must be conditioned or deed restricted to specify the permitted and prohibited uses on a case by case basis.

### 1.2.7 Deed Restrictions/Restrictive Covenants

In consideration for approval of certain applicable projects, the County has used restrictive covenants to protect biological resources. To date, over 4,000 acres in the County have been protected using this tool. These restrictions apply to current property owners and all heirs, successors, and assigns. Property owners are required to maintain the protected property in its “natural and vegetative and hydrologic condition” in perpetuity, and must post and maintain appropriate signage, such as the example to the right.

Restricted activities within restrictive covenant areas include, but are not limited to:

- Removal, mining, excavation, or disturbance of the soil or surface rocks or decaying material such as fallen trees;
- Placement of pavements, concrete, asphalt and similar impervious materials, laying of decomposed granite for pathways, or setting of stones, paving bricks or timbers;
- Operation of dune buggies, motorcycles, all-terrain vehicles, bicycles, mowers, tractors or any other types of motorized or non-motorized vehicles or equipment;
- Removal or alteration of native trees or plants, through such activities as irrigating, mowing, draining, plowing, tilling or disking, except as necessary for controlled burns (for fuel reduction, as regulated by Ventura County Fire Protection District), removal of non-native species and sensitive habitat restoration or maintenance (which must be under the direction of a qualified biologist);
- Application of insecticides or herbicides, poisons, or fertilizers;
- Grazing or keeping of cattle, sheep, horses or other livestock, or pet animals;
- Agricultural activity of any kind including the harvesting of native materials for commercial purposes;
- Planting, introduction or dispersal of non-native or exotic plant or animal species.

### 1.2.8 Other County Policies

Though this Oak Woodlands Management Plan does not include an analysis of policies and programs implemented by the ten cities in the County or other County departments, it is worth noting that there are additional policies that potentially impact oak woodland habitat in the County, such as fire clearance and grading requirements.

## Posted Sensitive Habitat

Direct or indirect disturbance of the plants, animals, streams, wetlands or other biological resources within this property is prohibited by Ventura County land use permit (insert case #).  
Ventura County Planning Division

## **2. CONSERVATION GOALS AND PROGRAM RECOMMENDATIONS**

The County's overall goal is to *preserve and protect* oak woodlands as an important County and State resource by:

- 1) Encouraging private landowners and conservation organizations to protect oak woodlands,
- 2) Ensuring consistent consideration of oak woodlands during discretionary permit review,
- 3) Considering appropriate amendments to the County's regulatory plans and ordinances, as funding permits, and
- 4) Support countywide biological data collection, analysis, and mapping.

### **2.1 Encourage Private Landowners and Conservation Organizations to Protect Oak Woodlands**

Approximately 37,000 acres of oak woodland in Ventura County are present on private land. This Plan has highlighted several tools the County has already developed that can be used by conservation organizations and private landowners to protect the oak woodlands on these parcels (e.g., Open Space LCA Contracts, Conservation Subdivisions, and Restrictive Covenants). In addition, the County's goal is to encourage conservation organizations to seek State Wildlife Conservation Board grant funds to protect oak woodlands and to educate local landowners about the importance of oaks and opportunities to conserve and protect them.

#### **2.1.1 Disseminate Oak Woodland Information to Property Owners**

The County should make available to the public information that has been compiled by experts in the field of oak woodlands protection. Topics may include:

- Managed grazing practices that have a neutral or beneficial effect on oak woodlands
- Guidance on planting and maintaining oaks trees
- Eradicating nonnative and noxious plants that harm oaks
- Improving wildlife habitat in oak woodlands
- Selling or donating the development potential of property containing oaks, (e.g., conservation easements, Land Conservation Act contracts, etc.)

Several communication mechanisms should be considered, including use of the Web, announcements in property tax assessments, workshops, and fact sheets and brochures made available at County offices, etc. County costs associated with this program objective could be offset through the oak tree mitigation fee trust account, which was established in part to fund education and outreach. The time frame of this program is approximately six months; however, it is dependant upon other programmatic priorities and budgetary constraints of the County Planning Division.

#### **2.1.2 Encourage Conservation Organizations to Seek State Funds to Protect Oak Woodlands**

To accomplish the goals described in the 2001 Oak Woodland Conservation Act, the State created a fund that can be used to purchase oak woodland conservation easements and provide grant monies for land improvements and conservation efforts. As of January 2007, this

fund contained approximately \$19 million. The Act requires that priority be given to grant proposals that include conservation easements, land purchases, grants for restoration or enhancement, long-term leases, and cost-sharing incentive payments. (e.g., money obtained for fencing, tree planting and maintenance, etc.).

Briefly, a conservation easement is a legal restriction that a landowner places on his property to define and limit the type of development that may occur. (It is fully defined in Section 815.1 of the California Civil Code.) The easement allows the landowner to continue to own and use the land within the limits set forth. The entity that holds the easement, (usually a nonprofit conservation organization) ensures that the resource values of the land are protected over time as specified in the easement. In exchange, the property owner typically realizes federal, state, and property tax advantages.

The County can actively encourage conservation organizations, landowners, and others to apply to the State for grant funds. In addition the state law requires that the County be involved in reviewing any grant proposals that are submitted to the Wildlife Conservation Board to ensure the proposal's consistency with the Board-approved Oak Woodlands Management Plan.

Preservation priorities may be based on an evaluation of several factors, including the presence and/or absence of:

- Additional Biological Resources, (e.g., wildlife corridors, habitat value, wetlands)
- Interested landowners and/or interested conservation groups
- Stand Composition, Integrity, and Functionality
- Existing adjacent or nearby preserves, LCAs and/or other ecological designations
- Adjacent county contiguous oak woodlands, (e.g., L.A. County/Santa Monica Mountains)
- Current condition of property (erosion, water quality, flood susceptibility)

To fulfill this program objective, copies of this Plan, as well as information on conservation easements should be disseminated to all known conservation organizations operating within Ventura County. Furthermore, this Plan should be posted on the County's website. County costs associated with implementing this program would be offset through the oak tree mitigation fee trust account. The time frame associated with this program is one month; however, it is dependant upon other programmatic priorities and budgetary constraints of the County Planning Division.

## **2.2 Ensure Consistent Consideration of Oak Woodlands during Discretionary Permit Review**

Although oak woodlands are noted in the Biological Resource sections of some of the County's regulations, (e.g., the County's General Plan-*Goals, Policies and Programs* and an attachment to the Initial Study Assessment Guidelines), this Plan recommends that additional references and information about oak woodlands be developed to help ensure that they are properly evaluated during discretionary permit review.

### **2.2.1 Amend Initial Study Assessment Guidelines**

To assist planners and consultants with the biological assessment of oak woodlands, this Plan recommends that additional definitions and associated descriptions of oak woodland characteristics be added into the Initial Study Assessment Guidelines. By doing so, all County agencies, contracted biologists and applicants would be aware of their status and hence,

consistently include them in biological assessments for public projects and discretionary permit planning and review.

**Canopy Cover** - As noted earlier, the California Department of Fish and Game defines oak woodlands as, “an oak stand with a greater than 10 percent canopy cover or that may have historically supported a greater than 10 percent canopy cover.” For this definition to be most helpful during the biological assessment process (and ultimately during project construction), some further description of “stand size and connectivity” and “tree density” is useful.<sup>14</sup>

**Stand Size and Connectivity** - Although it is not part of the CDFG’s oak woodland definition, “stand” is defined in a vegetation classification report completed by CDFG and the California Native Plant Society in 2006 for the Santa Monica Mountains. It defines “stand” as “the basic physical unit of vegetation in a landscape. It has no set size.”<sup>15</sup> In fact, there are an almost infinite number of woodland sizes, configurations, and associated ecological characteristics; and stand size is indeed important when determining overall functionality.

In general, larger oak woodland stands tend to provide the scale needed to allow for more complex ecosystems to function. The overall biodiversity of a stand tends to increase with size, since a larger variety of habitat features are more likely to exist in a larger area. Also, some species that require relatively large home ranges are likely to occur only in sufficiently large habitat areas. Conversely, small stands with a limited number of trees may not have sufficient genetic variation to provide for long term stability, and are more likely to be threatened by factors such as disease or long-term climate variation.

Clearly, oak woodlands and their associated habitat elements do not typically coincide with parcel boundaries. Therefore, during an Initial Site Assessment, Ventura County should consider the entire woodland of which a specific parcel or project site is a part. This is sometimes referred to as the “landscape context.” This concept is succinctly described by T.J. Swiecki, Ph.D:

“...if you want to manage the oak woodland resource at a county level, you have to start by ignoring property lines and look at the overall pattern of vegetation on the landscape. Each parcel is an artificial overlay over this natural distribution, so by starting with the landscape level picture, you can determine the relative importance of the patches of woodland that happen to fall within a given parcel or project area.”<sup>16</sup>

In this context, a relatively small woodland area can be very valuable if it is adjacent to other woodlands – especially if it forms a linkage between habitats.

**Tree Density** - Closely related to stand size is tree density – the number of trees per unit area. Tree density plays a significant role in the sustainability of a woodland. For example, very dense, overstocked stands can be characterized by trees that compete with each other for available water, light, and other nutrients. Very low density stands, characterized by individual tree canopies separated by large distances (200-300 feet or more), may not be sustainable due to low rates of regeneration.

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<sup>14</sup> Acknowledgement to Yolo County for their informative treatment of these oak woodland characteristics in the “Yolo County Oak Woodland Conservation and Enhancement Plan”, January 2007

<sup>15</sup> “Vegetation Classification of the Santa Monica Mountains National Recreation Area and Environs in Ventura and Los Angeles Counties, CA.” CDFG, CA Native Plant Society, T. Keeler-Wolf, J. Evans, et. al, January 2006, pg. 29

<sup>16</sup> Email correspondence, T.J. Swiecki, Ph.D, Phytosphere Research, May 2, 2007,

In between these extremes, a wide range of tree densities and site characteristics can sustain functional woodlands. In addition, different oak species have different natural canopy cover densities. For example, both coastal oak and valley oak woodlands can vary from open savannahs to closed canopy forests. Density variation can also promote greater biodiversity of animal species, as some species prefer closed canopy woodlands, while others use openings within the woodlands or edges between woodlands and other habitat types.

Given these considerations, canopy densities and stand sizes should be evaluated during the Initial Study Assessment Guidelines amendment process, and be based on the oak species and the larger “landscape context” of which the woodland is a part.

Another important consideration related to tree density is tree size and at what point a given tree is included in a tree density calculation. For example, the County’s existing Non Coastal Zoning Ordinance (Tree Protection Regulations) provides protection to oaks that are a minimum of 6.25 to 9.5 inches in circumference, depending on trunk configuration. Essentially, this denies protection of oak seedlings and saplings. Though environmental conditions such as soil, rainfall, and species competition can dramatically affect tree growth, a coast live oak with a circumference of 9.5 inches can be anywhere from 10 to 100 years old.<sup>17</sup> Moreover, “it is unknown how many years it takes [several species of oaks, including coastal oaks] to transition from sapling to tree, but it is probably decades.”<sup>18</sup>

Given that oak size (“WHR size”) data available for Ventura County indicates potential oak regeneration problems, protecting seedlings and sapling trees is crucial for maintaining future oak woodland viability. Therefore, the County should include an evaluation of oak seedlings/saplings during an Initial Study Assessment for a given project.

To fulfill this program objective, the Planning Division should utilize existing grant funds to modify the Initial Study Assessment Guidelines for Biological Resources and should include an explicit reference to oak woodlands as part of its definition of Locally Important Communities. The time frame associated with this program is six months; however, it is dependant upon other programmatic priorities and budgetary constraints of the County Planning Division.

### **2.2.2 Standard Mitigation Measures**

The development of mitigation measures is another primary obligation under CEQA. Scientifically-based mitigation measures would aid the County in complying with SB 1334 and will assist in the long-term preservation of the resource. As these measures are developed through project review, the County should consider that several scientific studies have questioned the effectiveness of planting oaks as a mitigation measure. For example, a University of California study states that:

[R]eplacing a century-old tree with 1, 3, or 10 one-year-old seedlings does not adequately replace the lost habitat value of large trees. It has become evident that simply focusing on mitigation planting based on a tree to seedling ratio is not a sufficient strategy to ensure the viability of oak woodlands...there is broad recognition that it is critical to

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<sup>17</sup> Email correspondence, Dr. William Tietje, Integrated Hardwood Range Management Program (IHRMP) Advisor, UC Cooperative Extension, February 24, 2007

<sup>18</sup> Tyler, Kuhn, Davis, “Demography and Recruitment Limitations of Three Oak Species in California,” Quarterly Review of Biology, Volume 81, No. 2, June 2006

conserve the inherent values that exist in mature oak forests wherever possible.<sup>19</sup>

Additional studies have noted that many important habitat elements, such as understory, cavities, acorns, and snags, will not be mitigated through a tree planting strategy alone. Considerations such as these are what prompted the California Legislature in SB 1334 to limit mitigation plantings to 50% of the mitigation requirement for a given project.

As mitigation measures are developed through project review, the mitigation measures should be made part of the Planning Division's standard permit conditions and administrative procedures, when appropriate.

## **2.3 Consider Appropriate Amendments to the County's Tree Protection Ordinance Regulations**

An important element of the Oak Woodlands Conservation Act is the "development of local land use planning that is consistent with the preservation of oak woodlands." In keeping with this goal, the County should consider possible amendments to its zoning ordinances that would aid the County in preserving oak woodlands.

SB 1334 (effective January 2005) requires counties to determine whether a project may result in the conversion of oak woodlands that will have a significant effect on the environment, and if so, requires the mitigation of those effects. At a minimum, to ensure compliance with SB 1334, the existing five-year tree survival requirement (for mitigation planting) in the "Tree Protection Regulations" of the Non-Coastal Zoning Ordinance should be changed to ensure tree survival for a period of seven years as required by State law.

Additional changes to the Coastal and Non-Coastal Zoning Ordinances are recommended. These include, but may not be limited to, the following:

- The Tree Protection Ordinance regulations are currently only applicable to the Non-Coastal Zoning Ordinance, so tree protection regulations should be incorporated into the Coastal Zoning Ordinance to ensure consistency.
- The Non-Coastal Zoning Ordinance is unclear as to how oak trees in public right-of-ways should be managed; so the regulations should be clarified to ensure proper balance between saving trees with maintaining public safety.
- The Tree Protection Ordinance currently identifies a "Heritage Tree" as any tree (regardless of its species) that has reached a circumference of 90 inches. The Planning Division believes that not all trees are deserving of this designation, including some non-native trees that compete and displace our more desirable native trees.
- The existing regulations allow up to 25 trees to be removed annually to accommodate agricultural operations with only a ministerial permit. This criterion for distinguishing ministerial and discretionary tree permits should be re-examined. Such an examination should include an analysis of how various types of agricultural operations impact oaks. For example, managing oak woodlands on land used for row crops and orchards presents different considerations than managing oak woodlands on rangelands.

To fulfill this objective of amending the tree permit regulations, the Planning Division should utilize funds from the oak tree mitigation fee trust account to amend the County Coastal and Non-Coastal Zoning Ordinances. The time frame associated with this objective is approximately one year; however, it is dependant upon other programmatic priorities and budgetary

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<sup>19</sup> A Planners Guide for Oak Woodlands, Second Edition, University of California, Agriculture and Natural Resources, 2005

constraints of the County Planning Division. In addition, public outreach regarding potential changes to the Ordinance will be conducted prior to any Board action.

## **2.4 Support Countywide Biological Data Collection, Analysis, and Mapping**

Although the State's FRAP maps were suitable for the level of detail required for this Plan, they are somewhat limited in scope and resolution. For example, the data do not generally provide sufficient detail on stand composition, stand condition, or other factors to fully assess local oak woodland resource values or area extent.

However, during the last five years, the County has spent considerable effort to begin collecting biological spatial data for a number of biological resources, such as wetlands, wildlife corridors, and vegetation communities – including oak woodlands and savannahs. Additional analysis, data integration, fine-scale mapping, and scientific peer review is necessary before this data can be widely and systematically used for making land use decisions.

The County has recently received some grant funding (approximately \$30,000) from the Southern California Association of Governments (SCAG) to begin this process during the first quarter of the 2007-08 fiscal year. However, additional funds will be needed to complete the project. Funding sources to support collection, analyses and mapping of oak woodland resources could include additional grant funds (including those from the Oak Woodland Conservation Act fund) and/or funds from the County's oak tree mitigation fee trust account.

## Attachment A Stakeholder List

### Agricultural, Industry, and Trade Groups

- Agricultural Futures Alliance – Kim Uhlich
- Agricultural Policy Advisory Committee – Rita Graham
- Farm Bureau of Ventura County – Rex Laird
- Ventura County Agricultural Commissioner – Earl McPhail
- Cattlemen’s Association – John Harvey, Richard Atmore, Bud Sloan
- CA Rangeland Trust – Andy Mills
- Building Industry Association/Greater Los Angeles – Natalie Ayala
- Ventura County Economic Development Association
- Ventura County Agricultural Association – Rob Roy

### Environmental Organizations/Conservation Agencies

- California Coastal Conservancy – Bob Theil
- Conservation Biology Institute – Dr. Mike White
- Friends of the Santa Clara River – Ron Bottorff
- Indian Nations Environmental University – Hazen Lamere
- Mountains Recreation and Conservation Authority (Santa Monica Mtns.) – Paul Edelman
- Nature Conservancy – E.J. Remson, Sandy Matsumoto, Coleen Cory
- Ojai Valley Land Conservancy – Derek Poultney
- Surfrider Foundation – Paul Jenkin
- Trust for Public Land – Marc Landgraf

### Government Organizations

- National Park Service – John Tiszler
- USDA/Natural Resource Conservation Service – Brooks Engelhardt, Casey Burns
- CA Coastal Commission – John Ainsworth
- CA Dept. of Fire and Forestry – Mark Rosenberg
- CA Dept. of Fish and Game – Todd Keeler-Wolf, Martin Potter, Natasha Lohmus
- Southern CA Association of Governments – Jessica Kirchner
- University of California, Cooperative Extension – Sabrina Drill
- University of CA/Integrated Hardwood Program – Bill Tietje, Greg Giusti

- Ventura County Supervisorial District 1 – Steve Offerman
- Ventura County Supervisorial District 2 – Damon Wing
- Ventura County Supervisorial District 3 – Martin Hernandez
- Ventura County Supervisorial District 4 – Mark Lunn
- Ventura County Supervisorial District 5 – Jim Estomo
- Ventura County Fire Protection District – Larry Williams
- Ventura County Watershed Protection District – Theresa Stevens, Pam Lindsey

Individuals/ Subject Matter Experts

- David Magney – David Magney Environmental Consulting
- Rick Burgess – City of Thousand Oaks
- Frank Davis – U.C. Santa Barbara
- Sanger Hedrick