

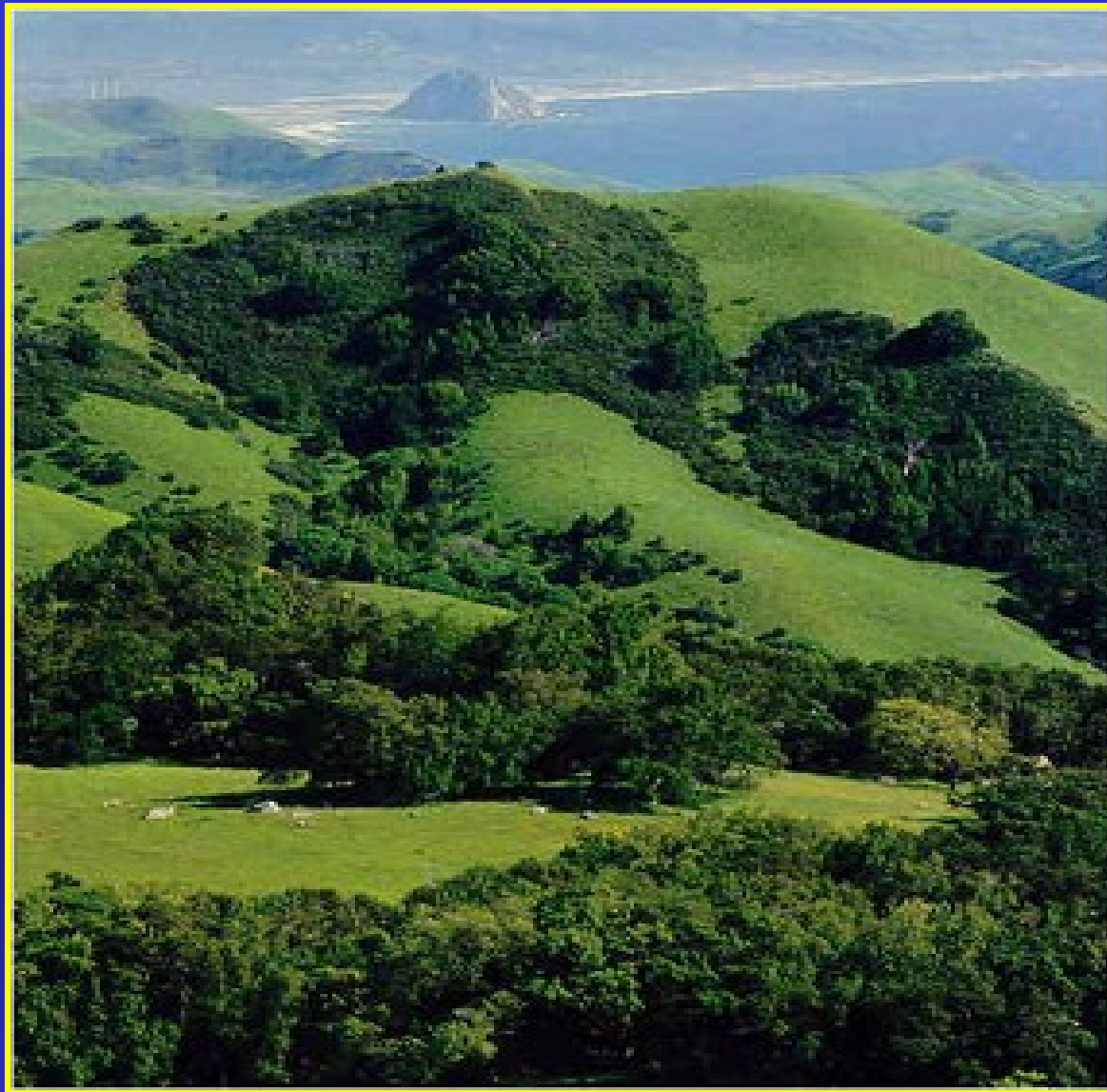
A PLANNER'S GUIDE FOR OAK WOODLANDS

**Prepared by
The University of California
Integrated Hardwood Range
Management Program
Fall, 2009**

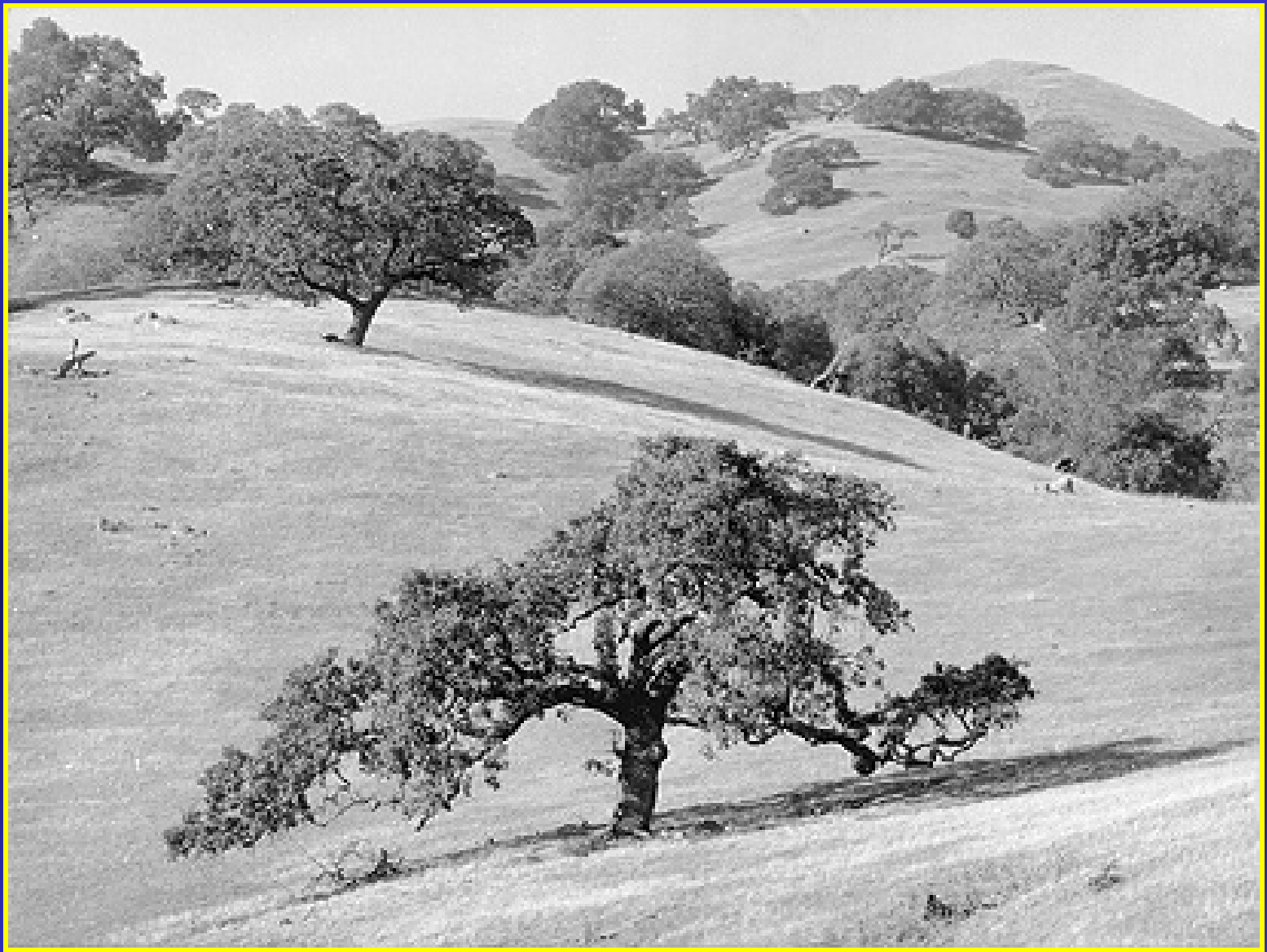
This Powerpoint presentation was prepared by the University of California Integrated Hardwood Range Management Program –



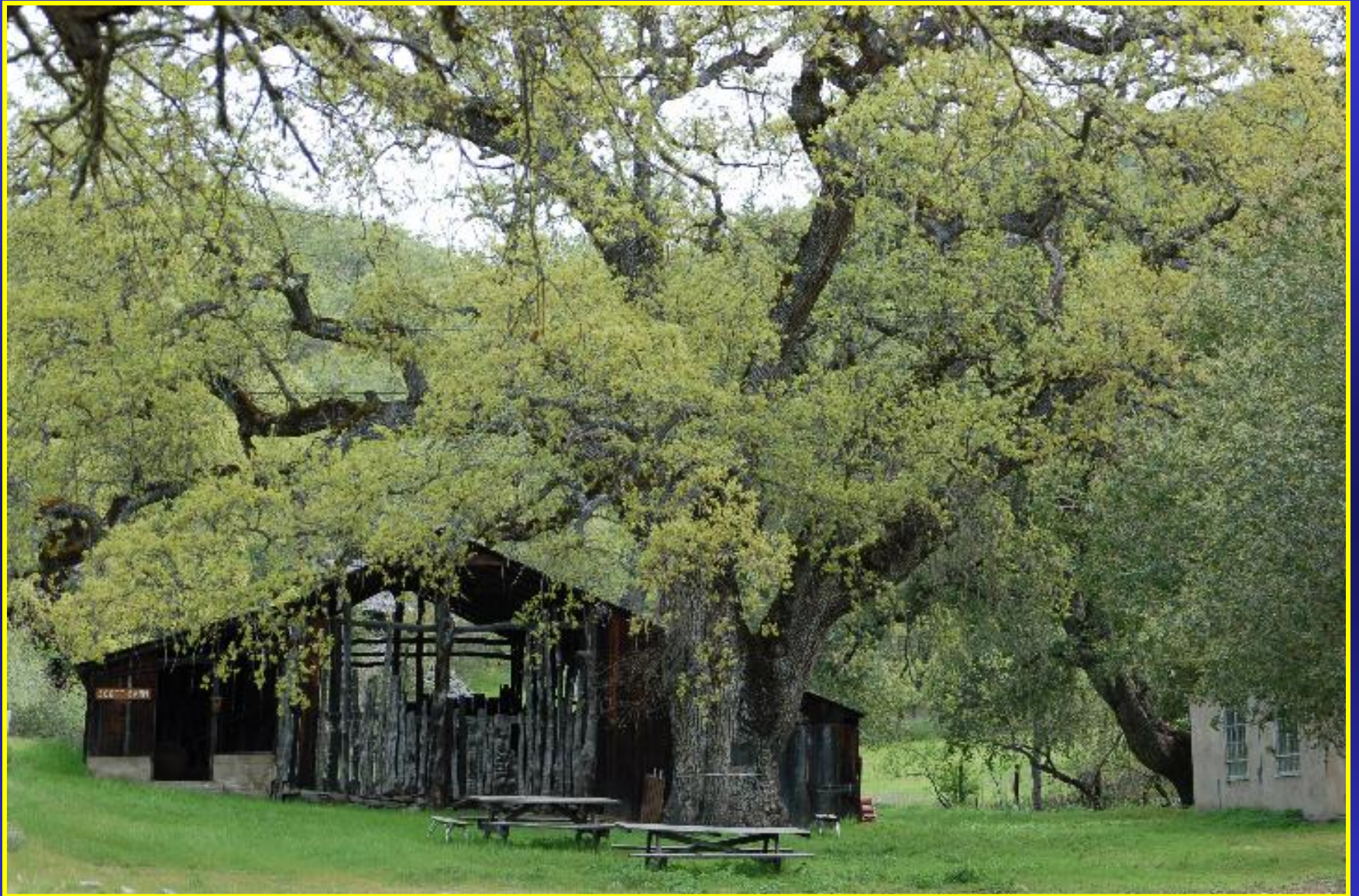
with financial support from the California Wildlife Conservation Board



It is hard to imagine California without oaks or oak woodlands. They are a backdrop to much of the state and for many residents oak woodlands are an iconic landscape that symbolizes California.



Golden brown hills dotted with gnarled oak trees epitomize what California looks like and native oaks represent qualities we hold dear - strength, beauty, adaptability and longevity.



As living witnesses to what transpired in the last several hundred years, old oaks also link Californians with the state's rich and colorful history –



from Native Californian's stewardship of the land and its resources --



to the Spanish Missions and the massive haciendas --



and to the Gold Rush era and the enormous changes that a burgeoning population brought with it.



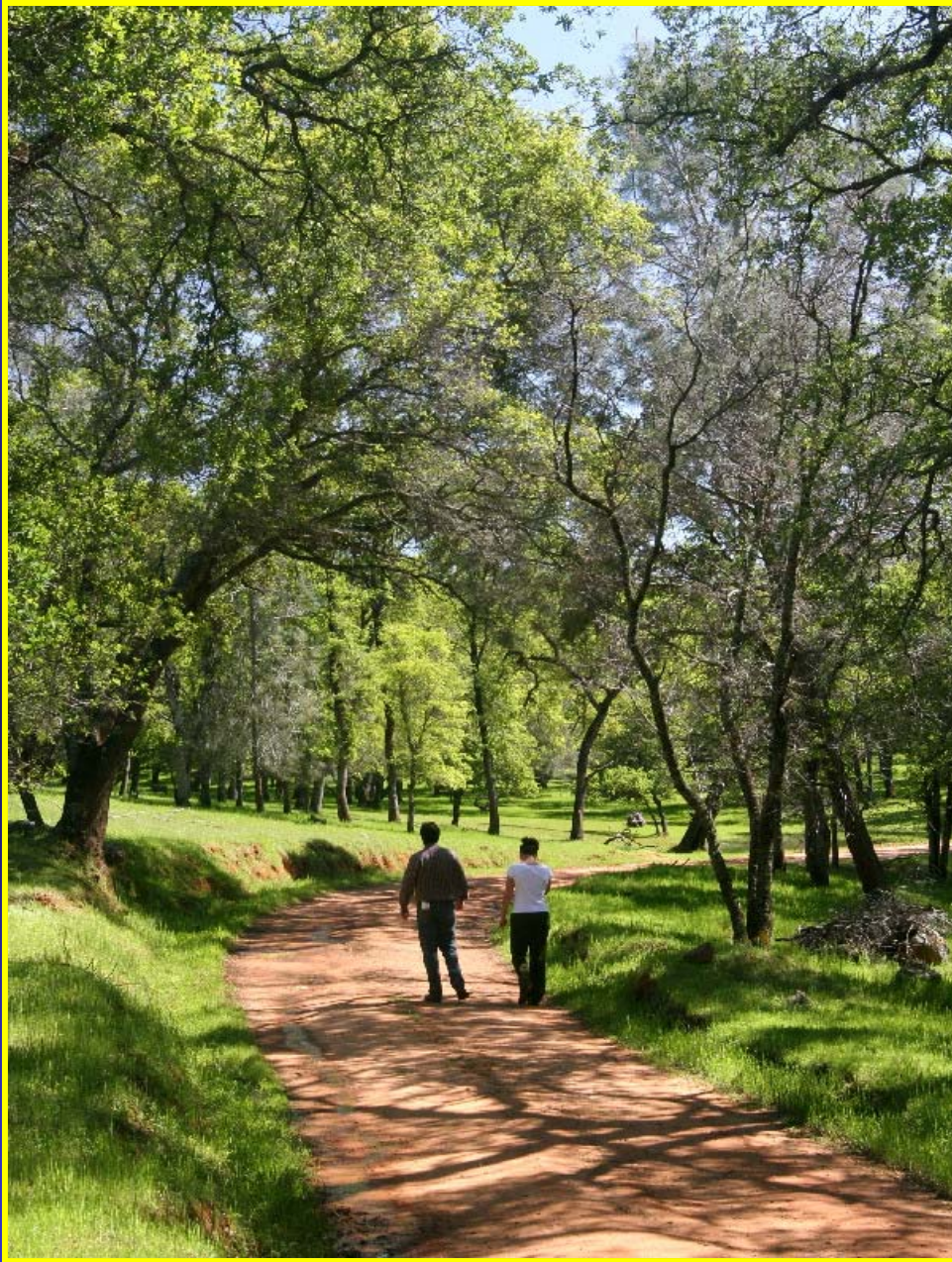
The value of oaks, however, goes well beyond their stature, beauty and how they connect us to the past. Oaks and oak woodlands are home to an abundant and diverse assortment of wildlife and the food and shelter they provide are essential for these animals to survive.



Woodlands are critical for protecting watersheds and ensuring the quality of water resources. Oak trees anchor the soil, preventing erosion and sedimentation.



Oak woodlands also provide the majority of forage for the state's important livestock industry.



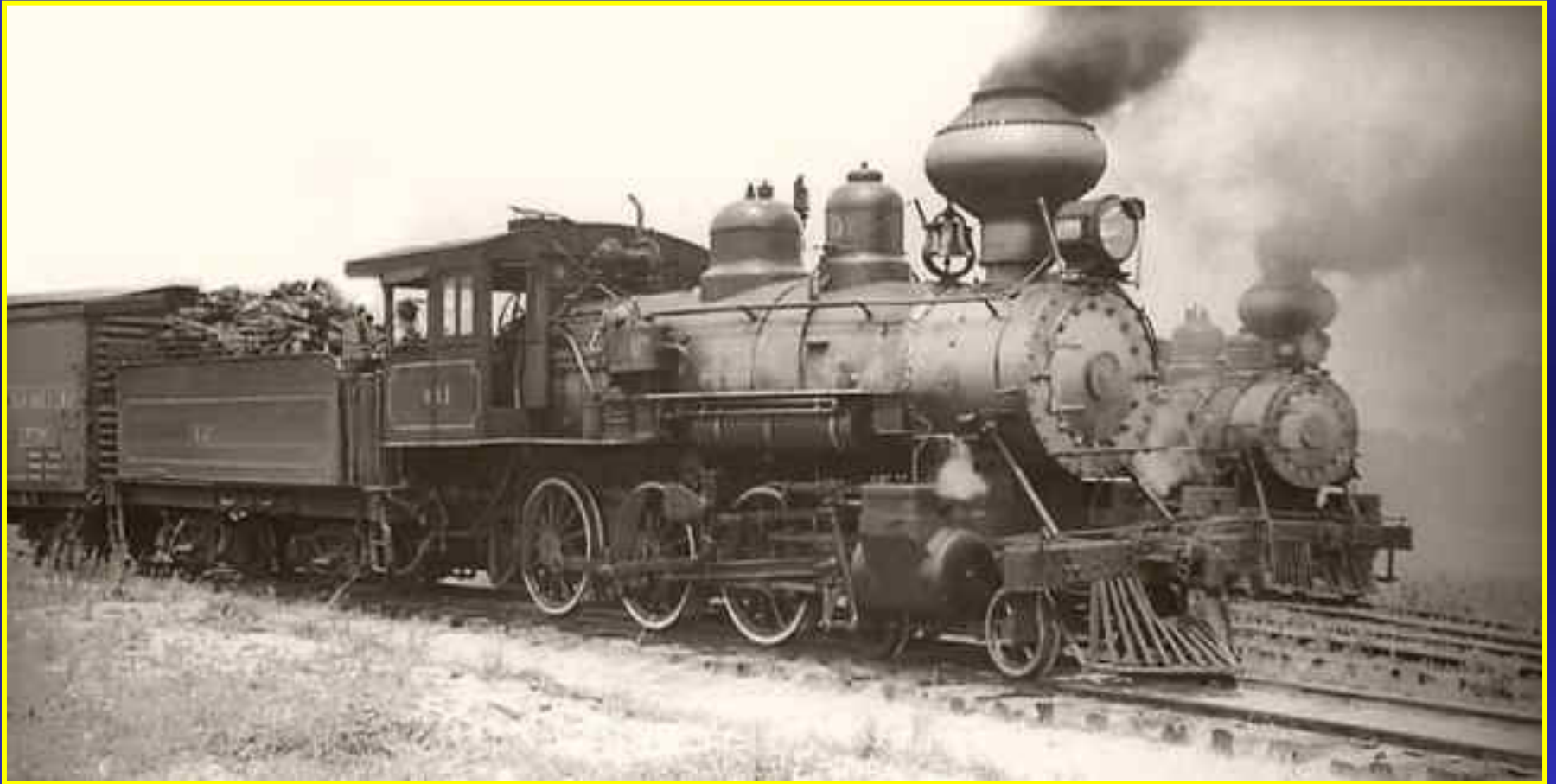
And finally, woodlands are some of the favorite places people go for recreation -- be it hunting, fishing, picnicking, mountain biking, or just to walk around and enjoy the ambiance.



While oak woodlands in California are still quite abundant, they have been severely impacted and reduced over the last 300 years. The best estimate is that roughly half of the pre-settlement area has been converted to other vegetation types.



Originally, substantial areas of woodlands were transformed to agricultural fields – especially in the Central Valley where deep, fertile, alluvial soils that supported valley oak (*Q. lobata*) forests were converted to orchards and other crops.



Oaks were also harvested for fuel for steamships, for railroads, and for industrial purposes.

EL DORADO
OF THE
UNITED STATES OF AMERICA.

THE DISCOVERY
OF
INEXHAUSTIBLE GOLD MINES
IN
CALIFORNIA.

TREMENDOUS EXCITEMENT AMONG THE
AMERICANS.

The Extensive Preparations
TO
MIGRATE TO THE GOLD REGIONS,
&c., &c., &c.

The great discovery of gold, in dust, scales, and lumps of quicksilver, platina, cinnabar, &c., &c., on the shores of the Pacific, has thrown the American people into a state of the wildest excitement. The intelligence from California, that gold can be picked up in lumps, weighing six



During the Gold Rush, oaks were important for firewood, for mining timbers, and for generating the energy to run the mines.



In the 20th century, loss of oak woodlands continued. From the end of the Second World War until 1975, approximately two million acres of hardwoods and chaparral were cleared to promote greater forage production for livestock



In the 1970's, after the oil embargo caused a rapid rise in the price of home-heating fuel, there was a great increase in the demand for oak firewood and thousands of acres of oak trees were cut down – primarily in the upper Sacramento Valley in north-central California



Today, pressures on oak woodlands continue. While agricultural conversions and firewood harvesting have been greatly reduced and have relatively little impact today, residential and commercial development –

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Note These

Features . . .

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which began in earnest in the middle of the twentieth century - continues at an even-increasing pace as the state's population continues to rise.



This has seriously impacted oak woodlands and the services and values they provide. Since it is expected that the state's population will continue to increase, these adverse impacts will also likely continue to grow --



because new residents create new demands and new conflicts. How California deals with this population increase will largely determine how our woodland resources are conserved.



This is where planning comes in. We feel that many of the impacts to woodlands can be mitigated with thoughtful and deliberate planning strategies that not only recognize the many benefits oaks provide, but take steps to minimize adverse consequences of the developments that do take place.

A Planner's Guide for Oak Woodlands

Second Edition

Edited by
Gregory A. Gustin
Douglas D. McCreary
Richard B. Standford



University of California
Integrated Hardwood Range Management Program
Publication 2007

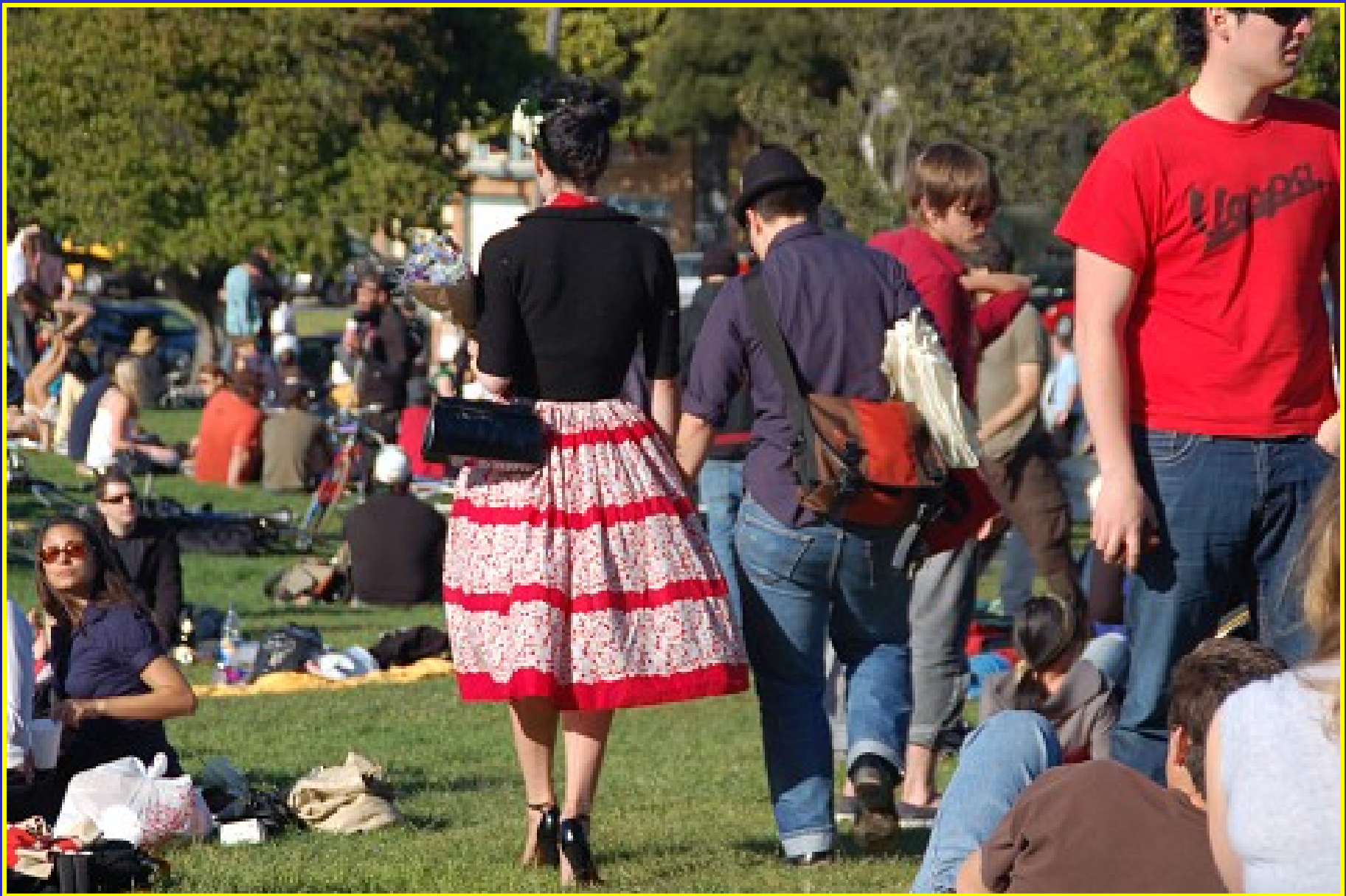
It is with this in mind that this PowerPoint presentation was developed. It is designed to introduce and describe a document titled *A Planner's Guide for Oak Woodlands* – that was produced by the University of California Integrated Hardwood Range Management Program



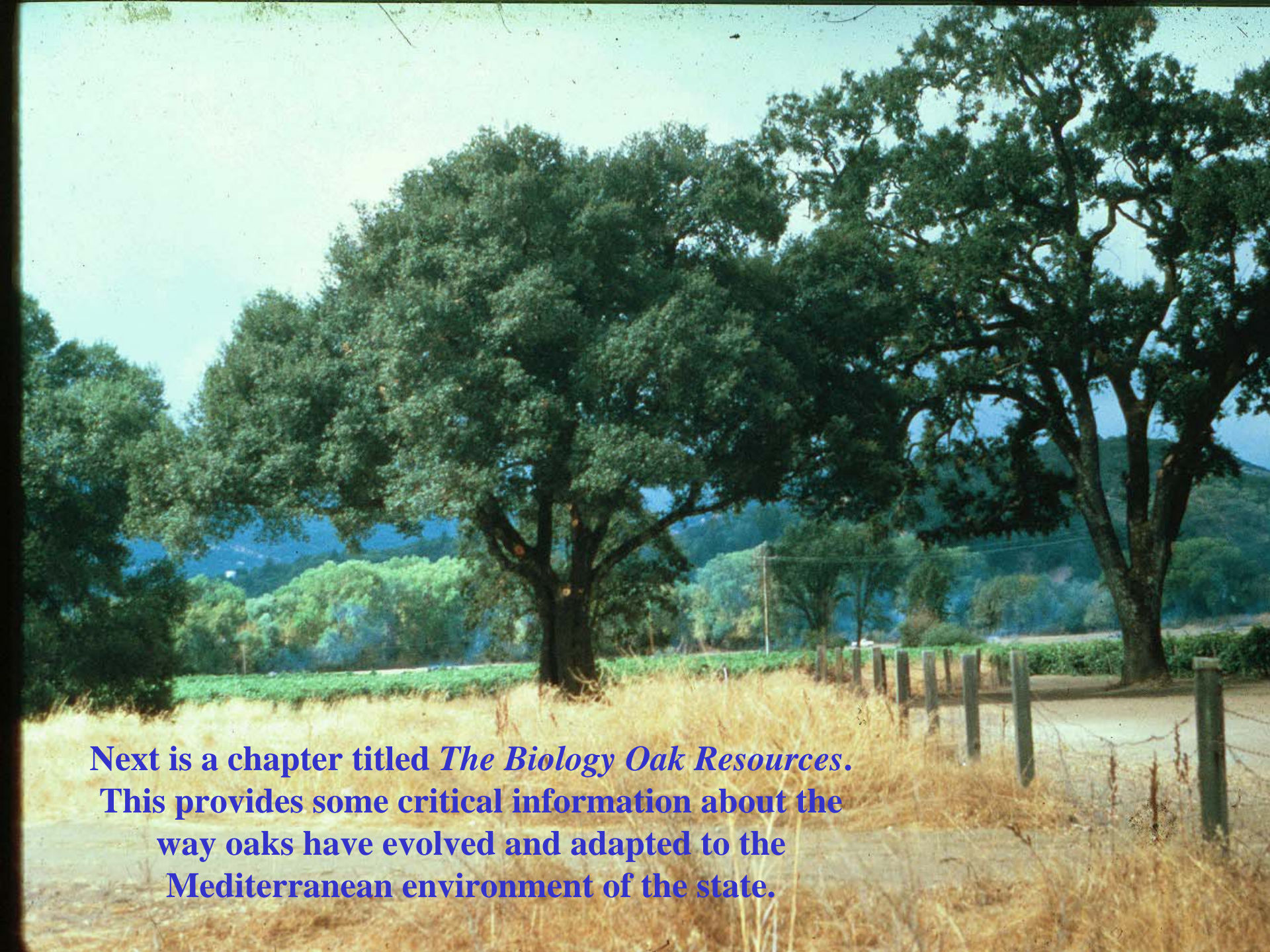
The overall goal of the Planner's Guide, as well of this PowerPoint presentation, is to help those operating in the planning arena promote policies that foster woodland conservation so that the wide array of amenity values and services that woodlands provide are conserved for future generations.



The Planner's Guide contains 9 chapters. It begins with an introduction focusing on *Planning's Role in Oak Woodland Conservation*. This discusses demographic trends and what the state is likely to experience in the next few decades.



In addition to population growth, there will be cultural shifts, and changes in the way the population views – and manages - its natural resources.



Next is a chapter titled *The Biology Oak Resources*. This provides some critical information about the way oaks have evolved and adapted to the Mediterranean environment of the state.

Gold-Spotted Oak Borer: A New Oak Pest



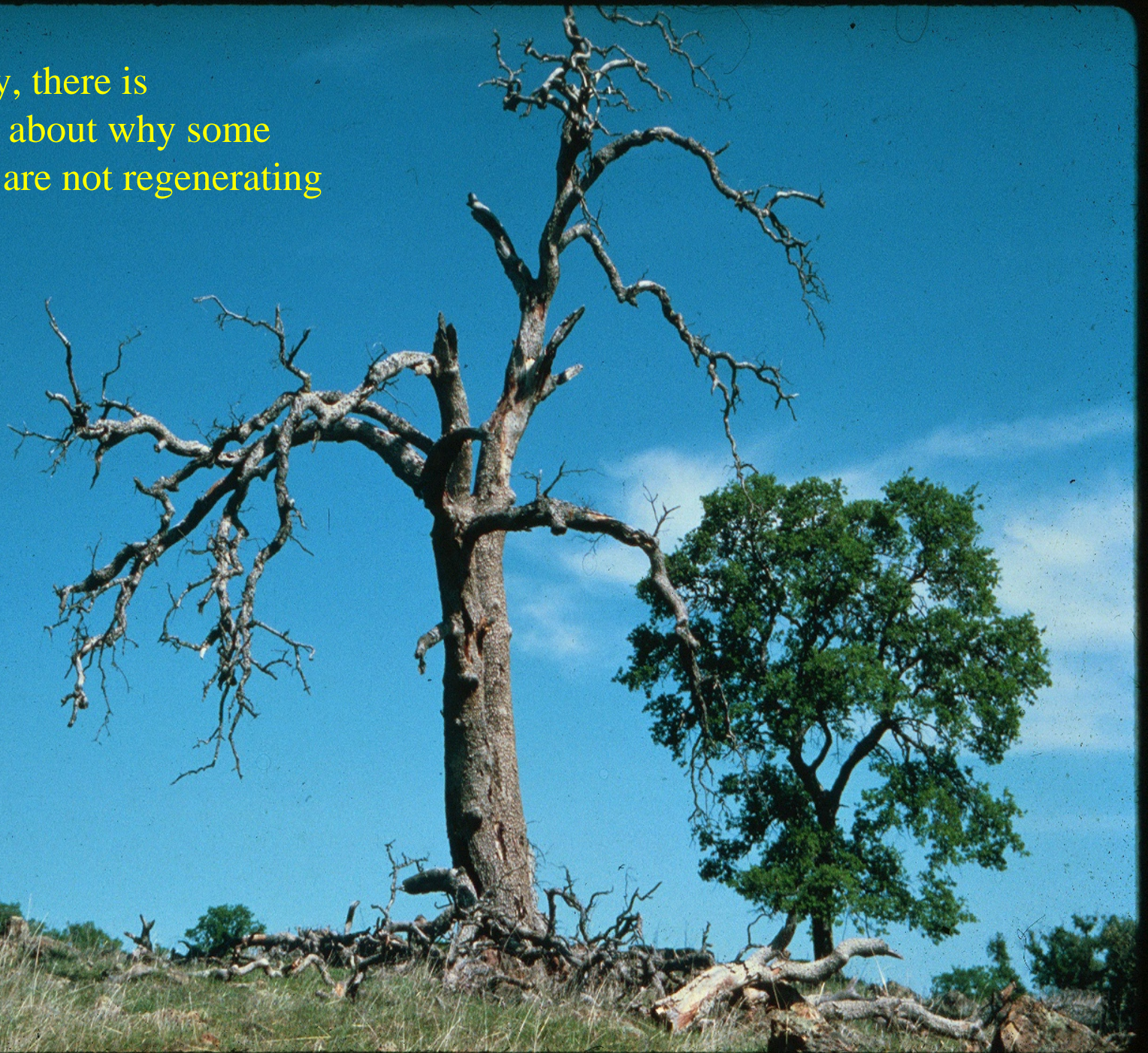
There are discussions of insects
and diseases that affect oaks --

An aerial photograph of a forest showing a significant portion of dead oak trees. The dead trees appear as brown, skeletal structures against the green canopy of living trees. A central purple banner with yellow text reads "Sudden Oak Death".

Sudden Oak Death

including an update on Sudden Oak Death that has killed thousands of oak trees along the coast.

Additionally, there is information about why some oak species are not regenerating very well--

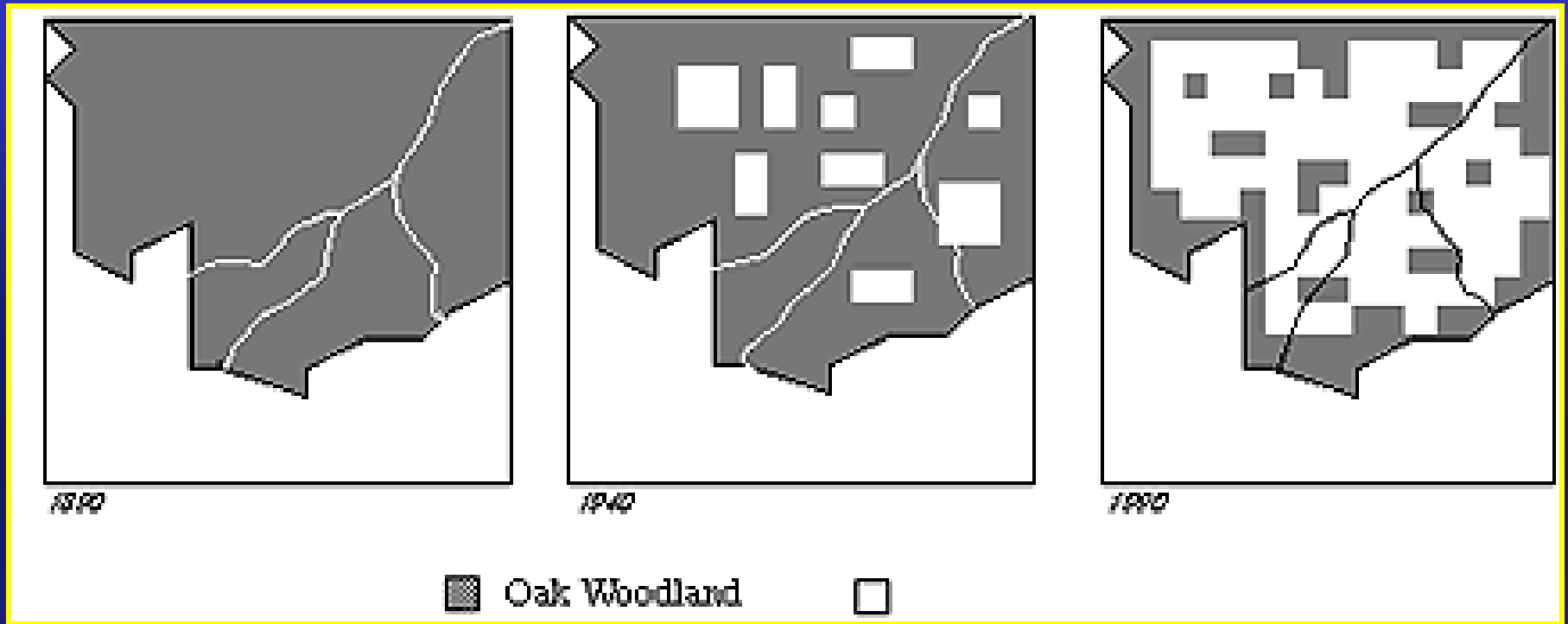




As well as information about how to successfully grow and plant young oaks.



Chapter 3 discusses *Wildlife* and the interconnectedness between oaks and the numerous wildlife species so dependent on them. Information is presented on woodland structure and how changes in structure can impact wildlife use. This has great relevance to planning since different configurations of buildings can have significant impacts on wildlife populations.



Developments that maintain wildlife corridors, for instance, will cause fewer problems for wildlife than those that fragment the landscape and prevent wildlife movement.



Certain wildlife elements, such as dead trees containing cavities, or dead and down logs, are also discussed, as well as the importance of preserving these, and other, key wildlife elements.



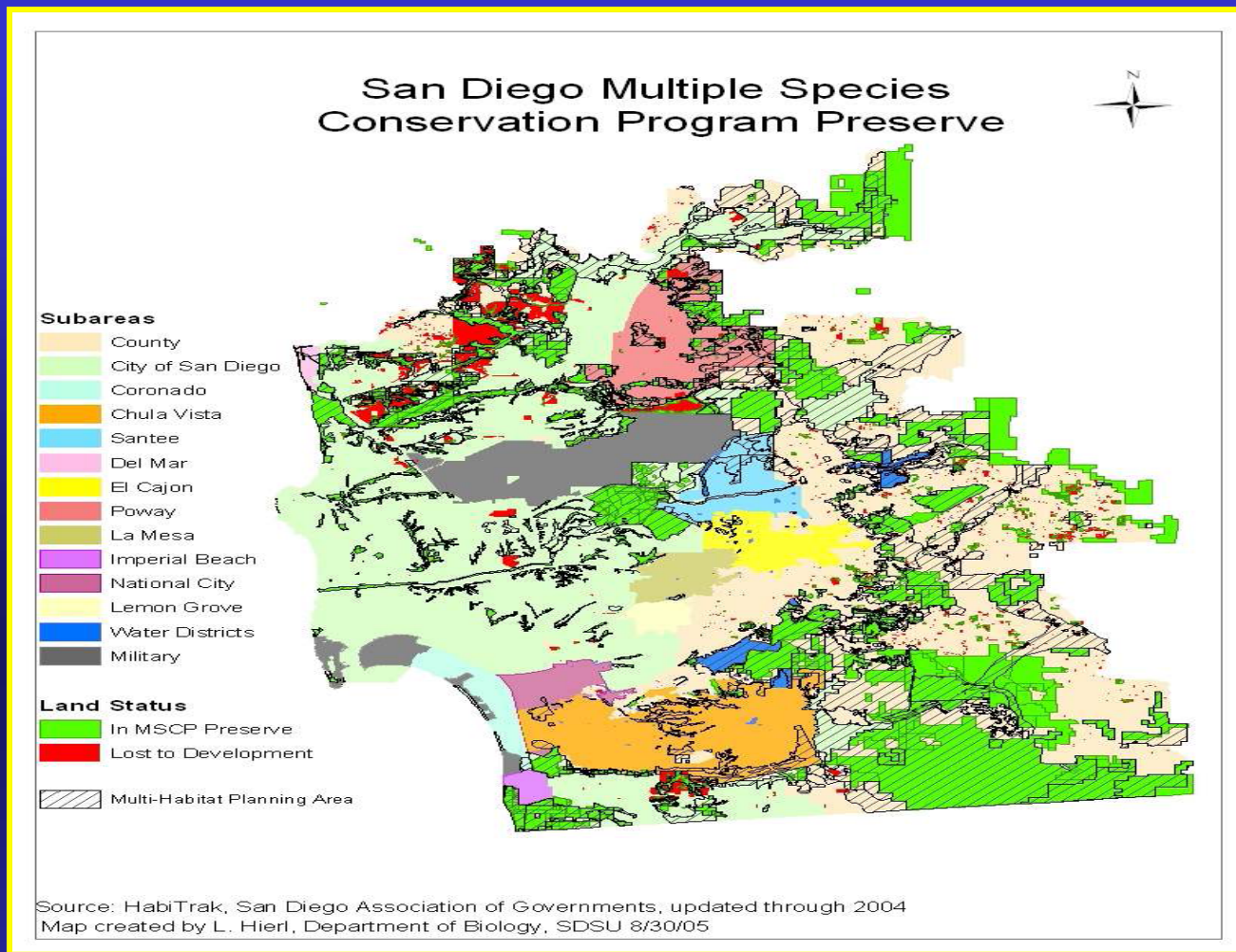
Chapter 4 addresses *Watershed Management in Oak Woodlands*. California's supply of water is intimately linked to woodlands since much of the state's water is stored as winter snow pack in the mountains and when it starts melting in the spring, flows through woodlands on its way --



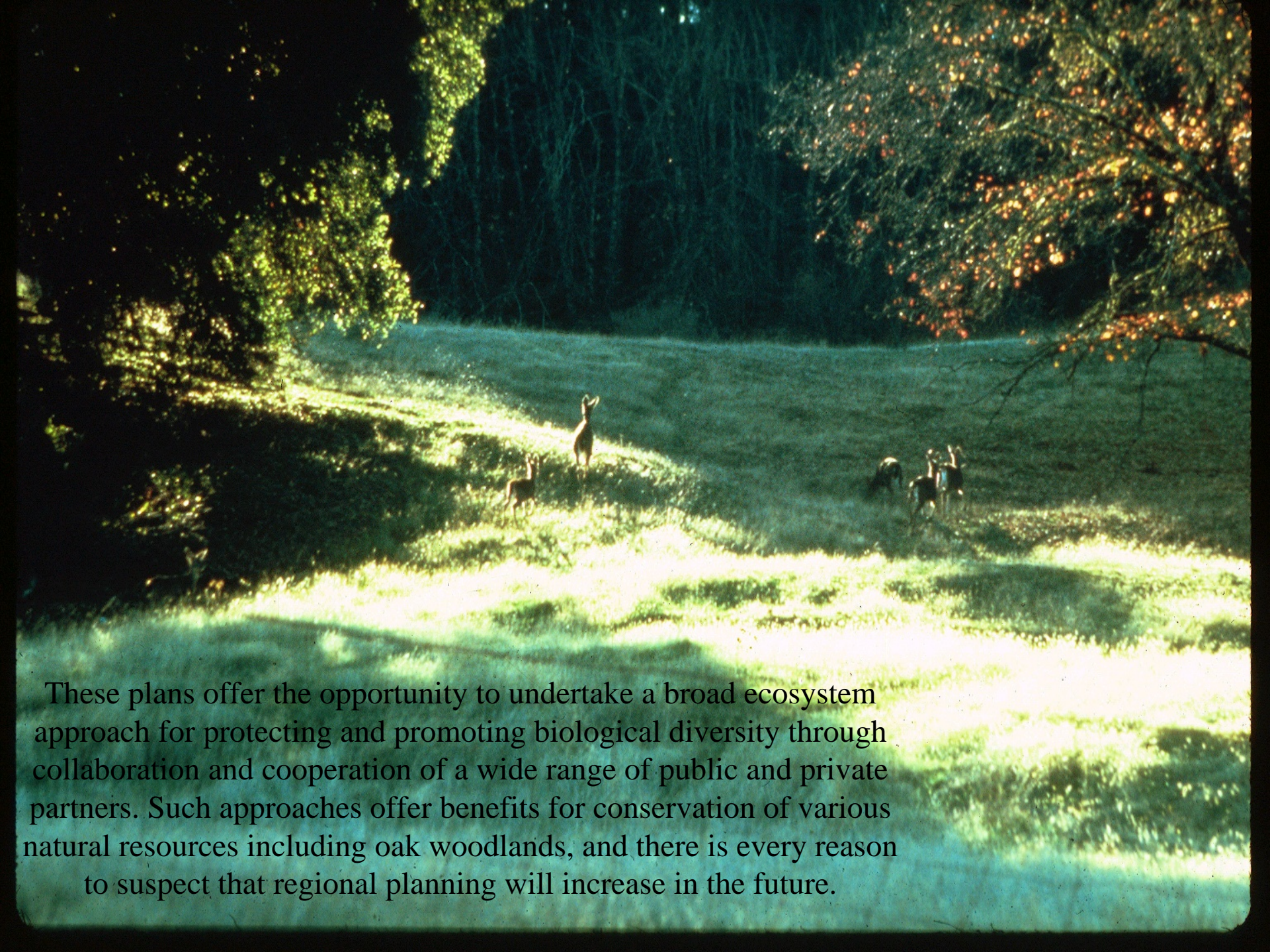
to the rivers that support fisheries, farms, and cities. General information about water delivery systems and the hydrologic cycle are presented, as well as information about emerging watershed polices.



In the last decade the idea of regional planning has emerged because of problems associated with planning around single threatened or endangered wildlife species and the consequences of enforcing the Endangered Species Act. Chapter 5 discusses *Habitat Conservation Plans* (HCPs) and



Multiple Species Conservation Plans (MSHCPs) that have been adopted in a number of regions throughout the state. Such plans offer assurances to developers that projects will not be shut down mid-stream, while environmental interests generally support the idea of plans that focus on improving habitat that can benefit a number of wildlife species simultaneously.



These plans offer the opportunity to undertake a broad ecosystem approach for protecting and promoting biological diversity through collaboration and cooperation of a wide range of public and private partners. Such approaches offer benefits for conservation of various natural resources including oak woodlands, and there is every reason to suspect that regional planning will increase in the future.

A photograph of a lush green field filled with numerous bluebonnets in full bloom. The flowers are a vibrant blue-purple color, scattered across the grass. In the background, several trees with thick trunks stand against a bright, slightly hazy sky. The overall scene is a natural, rural landscape.

Chapter 6 is titled *Planning Options for Oak Conservation* and addresses such topics as using general plans to protect oaks, implementing the California Environmental Quality Act or CEQA --



conservation easements, addressing cumulative impacts, and mitigating adverse impacts. It discusses the various measures available to planners, given the legal, social and political environment they operate in.

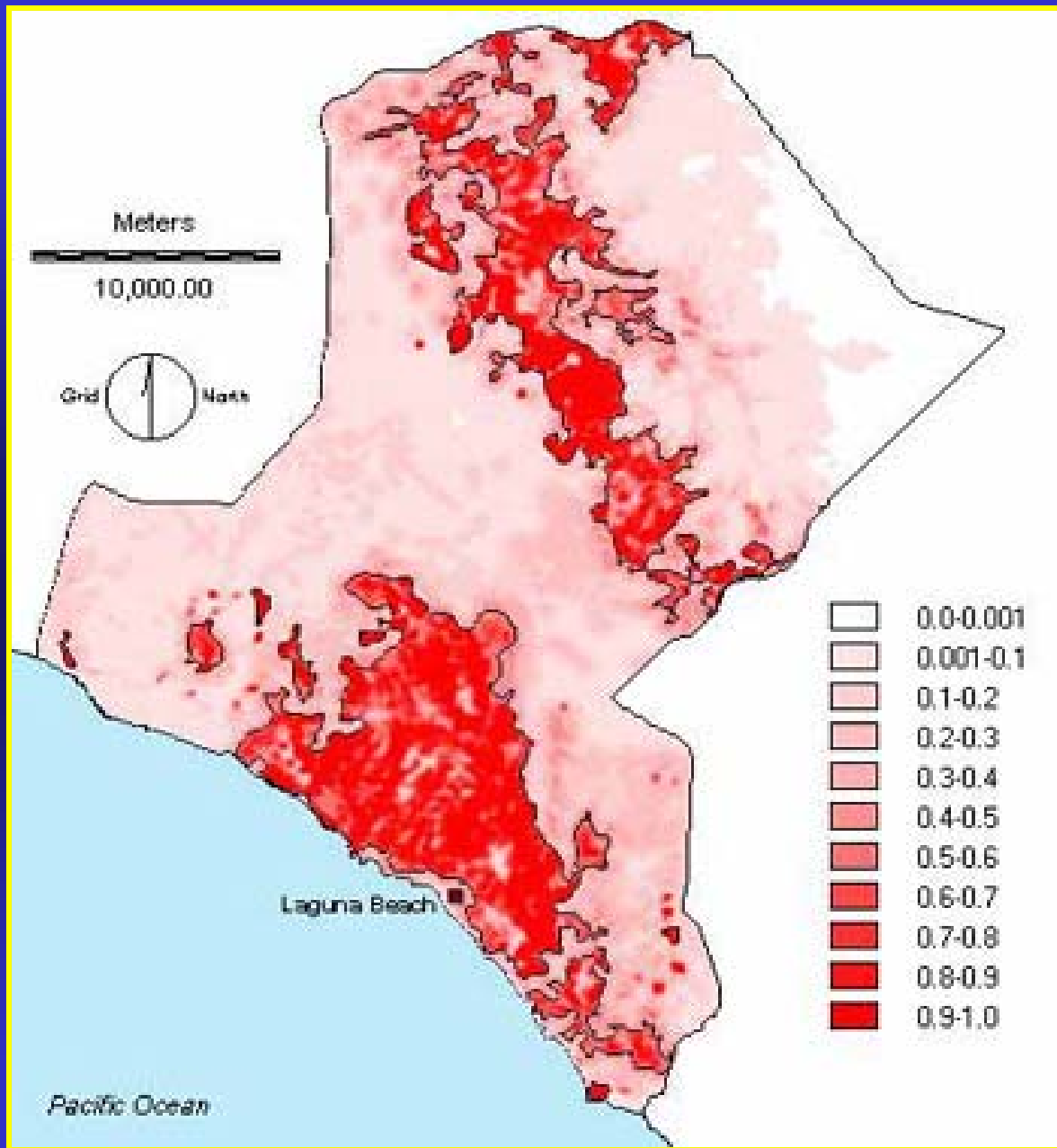
California Senate Bill SB 1344
Public Resources Code §21083.4

Conservation of Oak Woodlands:
Environmental Quality
Author: Senator Kuehl
Passed 2004

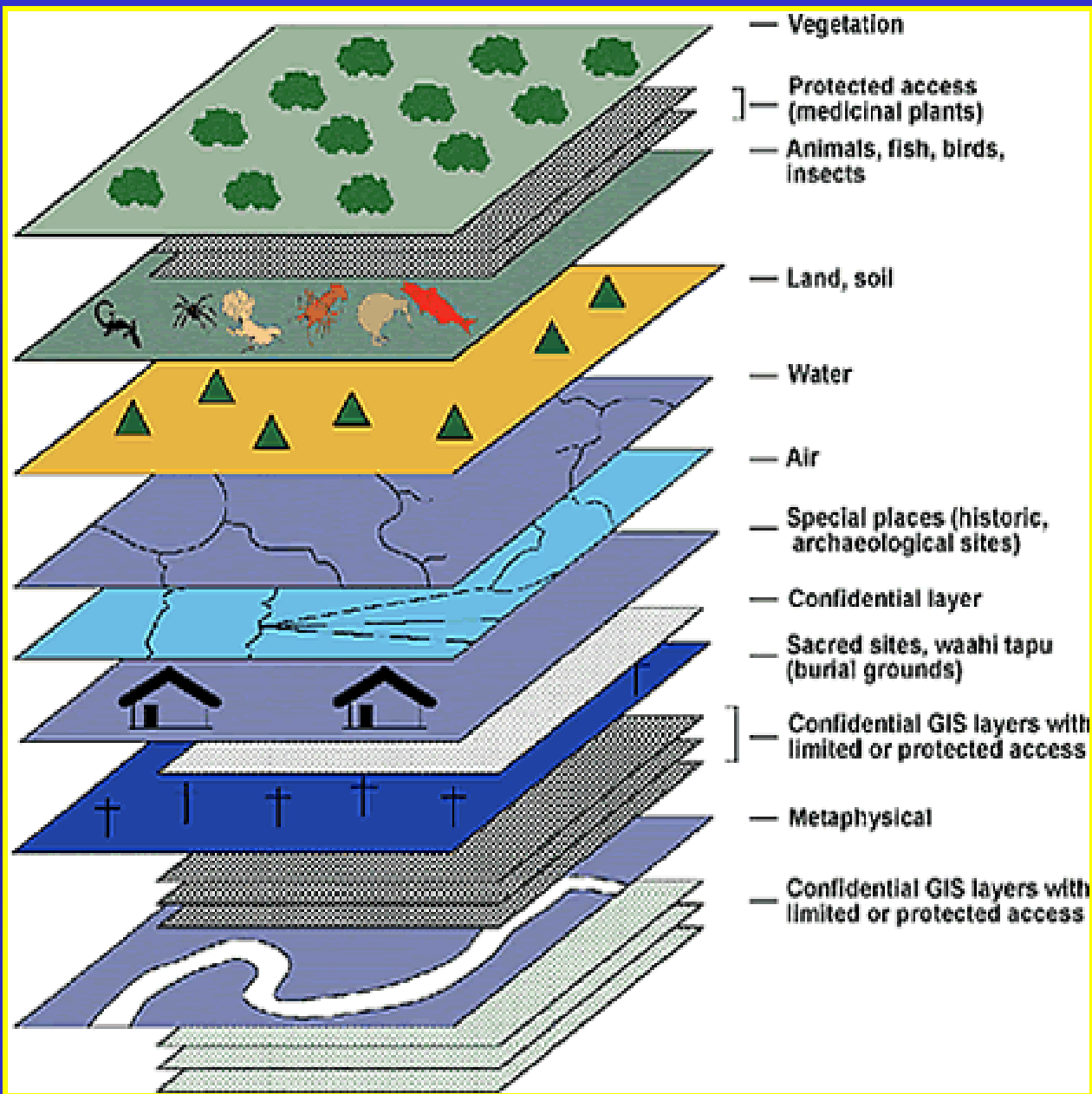
This chapter is particularly relevant since the passage of Senate Bill 1334, which mandates that counties invoke CEQA for projects that have significant impacts to oak woodlands. How to determine the level of significance of a project is discussed, as well as mitigation alternatives.



In the last 20 years, there have also been enormous changes in how resources are measured, mapped, and analyzed and new technologies have emerged that have greatly improved the land-use planning process.



For instance planners now regularly use remote sensing and geographic information systems - or GIS -



that allow them to easily integrate spatial information with parcel data to identify parcels that contain oak woodlands and other critical resources. *Chapter 7* describes these new resources in the context of how they can be used to help foster woodland conservation.

CHAPTER 8

Oak and Oak Woodland Ordinances

Ted Swiecki

and Douglas D. McCreary

One technique that has historically been used by local planning entities to protect resources is the ordinance. *Chapter 8* describes how ordinances have been used in the past to protect oaks --



and how they occasionally have not met their intended objectives. This is followed by step-for-step procedures for developing an effective ordinance, including garnering community support, clearly defining the goals, and developing – and enforcing - performance standards.



A Planner's Guide for Oak Woodlands concludes with Chapter 9 titled *California's Hardwood Rangelands: Production and Conservation Values*. This chapter focuses on the economic uses of oak woodlands and how these uses can affect conservation.

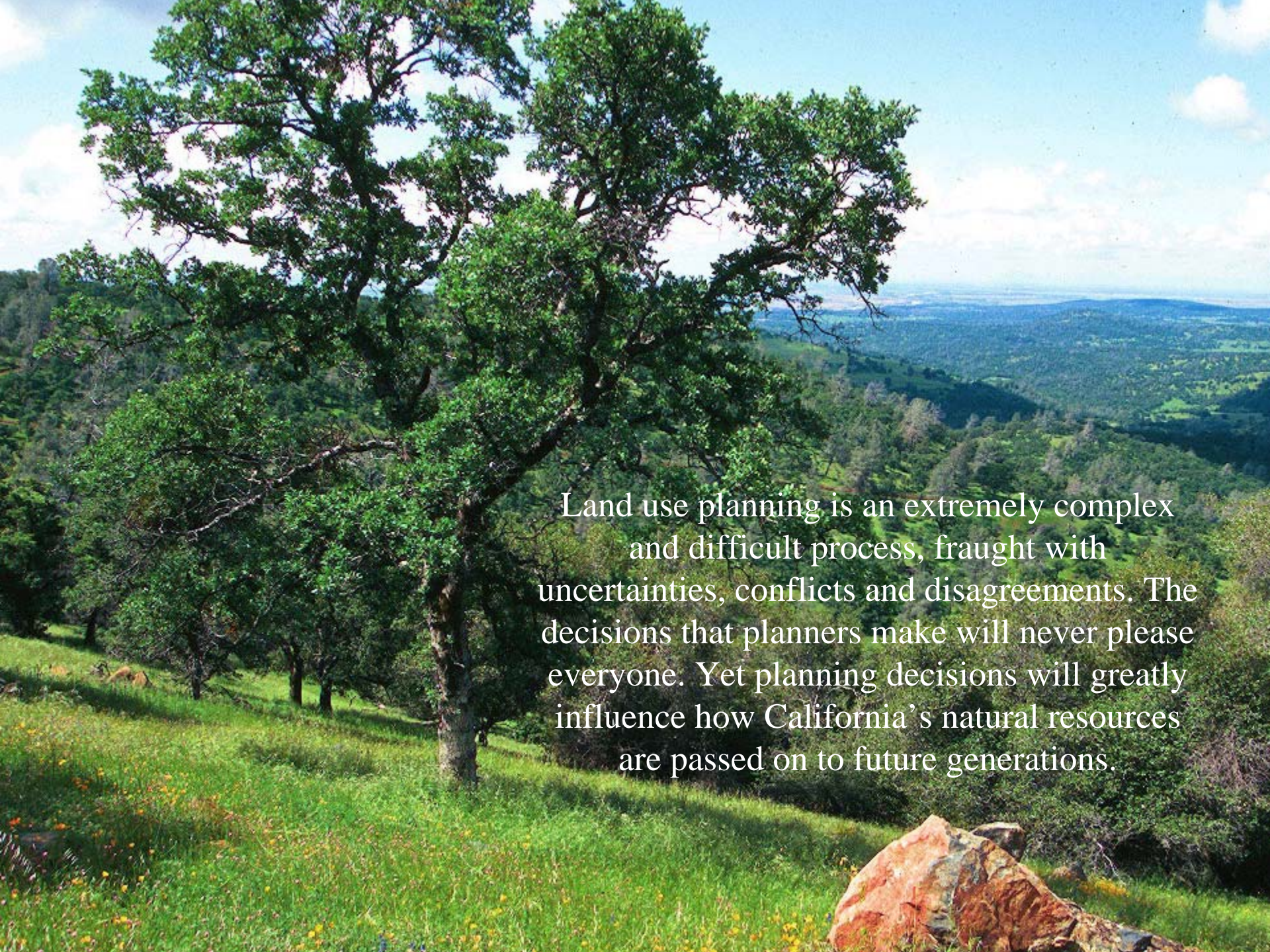


Woodlands provide a wide array of amenity values to the public, such as scenery, clean water and open space at little or no cost. As a result, the value of land for ranching is far less than that for development.

WILD TURKEY HUNTING



This chapter also discusses some opportunities for alternative income, such as fee hunting, bird watching or wine grape production, that would hopefully provide property owners with additional income, allowing them to maintain their properties as working landscapes, rather than forcing them to sell to developers.

A scenic landscape featuring a large, leafy tree in the foreground on the left. The background shows a vast valley with rolling hills, green fields, and distant mountains under a blue sky with scattered clouds. In the bottom right corner, there is a large, reddish-brown rock.

Land use planning is an extremely complex and difficult process, fraught with uncertainties, conflicts and disagreements. The decisions that planners make will never please everyone. Yet planning decisions will greatly influence how California's natural resources are passed on to future generations.



**Produced by the Integrated Hardwood
Range Management Program**

It is hoped that this presentation, and the *Planner's Guide for Oak Woodlands* described herein, will help advance this process and ensure that oak woodlands remain a vital part of California's unique and diverse natural landscape.