

An Oak Woodlands Management Plan for Santa Clara County



**Adopted by
Santa Clara County
Board of Supervisors
May 3, 2005**

THE OAKS OF SANTA CLARA COUNTY



Black Oak
Quercus kelloggii



Blue Oak
Quercus douglasii



Canyon Live Oak
Quercus chrysolepis



Coast Live Oak
Quercus agrifolia



Interior Live Oak
Quercus wislizenii



Leather Oak
Quercus durata



Oregon Oak
Quercus garryana



Scrub Oak
Quercus berberidifolia



Shreve Oak
Quercus parvula
var. shrevei



Valley Oak
Quercus lobata

Leaf colors for some species may vary by season. The species with brown leaves above have green leaves during the summer.

Leaves shown are not to the same scale. Some may be larger or smaller, relative to other species, than they appear above.

Leaf shapes within the same species may vary significantly.



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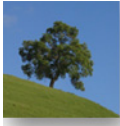


The Santa Clara Valley

“And the gray earth loved its flowers as the flowers love the sun,
And the glory of the daytime into even’s glory run;
And the live oak wore its banners green through all the year unfurled,
And so was Santa Clara’s vale first given to the world.”

Excerpt from a poem by A. J. Waterhouse, 1896





INTRODUCTION

Purposes of This Plan

The preparation, adoption, and implementation of this plan are intended to accomplish several basic purposes, including:

- Providing greater awareness of the importance of oak woodlands among private and public landowners, community organizations, public agency decision makers, and the public at large
- Identifying potential threats to the health and viability of Santa Clara County's oak woodlands and oak species
- Making more accessible existing information regarding the current extent, character, and condition of oak woodlands in Santa Clara County
- Increasing collaborative and individual private and public efforts to conserve and enhance oak woodlands in Santa Clara County
- Making private landowners, public agencies, and nonprofit organizations eligible to apply for grants under the California Oak Woodlands Conservation Program
- Improving communication among private landowners, public agencies, and nonprofit organizations concerned about the health and viability of Santa Clara County's oak woodlands

Preparation and Adoption of This Plan

California state law does not require that cities and counties in California adopt oak woodlands management plans unless they wish to enable private landowners, public agencies, and nonprofit organizations to seek grant funding under the California Oak Woodlands Conservation Act.

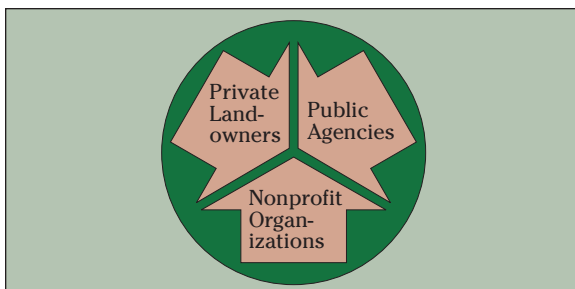
Nor does state law require that the city or county that chooses voluntarily to adopt an oak woodlands management plan prepare the plan itself.

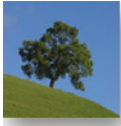
This Oak Woodlands Management Plan for Santa Clara County was prepared by an ad hoc stakeholders' committee that included representatives of rural landowners organizations, ranching and farming organizations, land conservation organizations and agencies, and other organizations and agencies concerned about the conservation of oak woodlands in Santa Clara County.

The draft plan prepared by the stakeholders' committee was submitted to the County for its review and adoption.

Focus on Voluntary Action Based on Existing Policies

The focus of this Plan is on achieving oak woodlands conservation through voluntary, collaborative action by private and public landowners, public agencies, nonprofit and other community organizations, and community volunteers. It is based on the County's existing General Plan policies and proposes no changes or additions to these policies.





THE IMPORTANCE OF OAK WOODLANDS

Oak Woodlands – California’s Signature Landscape

Oak woodlands are an important element of California’s and Santa Clara County’s natural and cultural landscape. They provide critical wildlife habitat, scenic beauty, healthy watersheds, recreational opportunities, a link to our historical heritage, and the foundation for productive, working landscapes.

Their widespread distribution and unique appearance make them California’s signature landscape – the landscape that, perhaps more than any other, defines California’s special visual character.

Maintaining the health and well-being of these oak woodlands is both a challenge and an obligation we have to current and future generations.

Adoption and implementation of this Oak Woodlands Management Plan for the rural unincorporated area of Santa Clara County, as encouraged under state law, can be an important step toward assuring the long term conservation and enhancement of this county’s oak woodland resources.

The Multiple Benefits of Oak Woodlands

Oak woodlands provide multiple benefits, each of which is significant in itself. Collectively, these benefits make oak woodlands one of California’s and Santa Clara County’s most productive and important natural landscapes.

Wildlife Habitat and Sustenance

Oak woodlands support the richest wildlife community of any major habitat in California, providing food, shelter, nesting and resting areas for a wide array of mammals, birds, reptiles and amphibians, and insects.

Acorns, oak leaves, oak wood and sap provide sustenance for a myriad of insects, birds, and mammals.

At least 60 of California’s 169 terrestrial (i.e. land-based) mammal species utilize oak woodlands for food or cover. Acorns are part of the diet of more than 30 of these mammal species.

About 60 species of birds are associated with oak woodlands, and many more species of birds depend upon oak woodlands at some point in their life cycles.

California has more than 30 bird species that eat acorns. Many other bird species prey heavily on insects that live in oak woodlands.

Watershed Protection

Oaks play important roles in protecting watersheds. The roots of oak trees bind the soil and thereby reduce soil erosion, which, in turn, helps to maintain water quality in streams and rivers. Also, by retaining water, oak trees increase evapotranspiration and decrease runoff compared to grassland dominated watersheds.



Open Space, Aesthetic and Recreation Benefits

Other than the underlying landforms themselves, oaks are the physical feature that most defines and provides beauty to the landscape in many parts of California and Santa Clara County.

They are one of the most common natural features of the public parks and open space lands within the county, providing not only aesthetic pleasure but also shady resting spots for parkland visitors. They are also often the preferred location for picnicking and camping facilities in these parks.

Without oaks and oak woodlands, the aesthetic and recreational experience of most of our public parks and open space lands would be greatly diminished.

Working Landscapes

Oak woodlands throughout California also serve as productive, working landscapes, contributing to our food supply and to the economic well-being of their local communities. Oak woodlands and rangelands account for more than 2/3 of California's total forage area for livestock.

Well-managed farming, ranching, and grazing operations in oak woodlands provide a source of livelihood for farmers and ranchers that may reduce the temptation for them to sell these open space lands for urban and rural development.

Consequently, maintaining viable farms and ranches as working landscapes in ways that are compatible with oak woodlands conservation can provide not only food and economic benefits, but contribute to open space preservation as well.

Diversity of Plants in Oak Woodlands

Oak woodlands support a wide variety of plant species. It is estimated that the diversity of native plant species in oak woodlands number in the thousands.

Cultural / Historical Benefits

Oak woodlands are important links to our cultural and historical past.

Many of our older oaks have been alive for several centuries, predating California statehood and even the establishment of the United States.

Standing as stately and majestic sentinels of time, they provide a reminder of the earlier inhabitants of this area, stretching back even to the time prior to European settlement when oak woodlands were inhabited by Native Americans who lived among and drew sustenance from them.

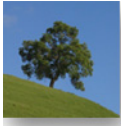
In a state where rapid urbanization has erased most signs of earlier habitation, oak woodlands have remained an enduring, albeit threatened, feature of the landscape.

Conserving oak woodlands conserves a part of our natural, cultural, and historical heritage.

Loss of Oaks Would Have Numerous Adverse Impacts

Given the wide array of benefits that oak woodlands provide to California and to Santa Clara County, and the problems that their loss would create, conservation of oak woodlands deserves priority attention.





THREATS TO OAK WOODLANDS IN CALIFORNIA

Threats to Oak Woodlands in California

It is estimated that more than a million acres of oak savannah and oak woodlands have been lost due to residential development in California since 1945 – and various factors are contributing to their continuing loss today.

Currently, oak woodlands in California face three basic kinds of threats:

1. Loss of existing oak woodlands,
2. Lack of regeneration (i.e. failure to produce enough young oaks to ensure the future viability of oak woodland habitats)
3. Habitat fragmentation

Each of these threats need to be addressed if further losses of oak woodlands are to be avoided and oak woodlands are to remain the productive, signature landscape of California.

Loss of Existing Oak Woodlands

The major causes contributing to the loss of existing oak woodlands in California can generally be attributed to a combination of natural factors and human activities.

Natural factors contributing to oak woodlands loss may include: age, disease (e.g. Sudden Oak Death), parasites (e.g. moths and, possibly, mistletoe), invasive plant and animal species (that may deprive oaks of necessary water or disturb seedling habitat), and weather (e.g. droughts and storms).

Human activity factors contributing to oak woodlands loss may include: Urban and rural residential encroachment and habitat fragmentation, which can result in direct losses of oaks through their removal or indirect loss through changes in water regimes (e.g. over-watering around the roots of oak trees or altering the level of the underground water table), harvesting



or thinning of oaks, inappropriate management, and, in some areas, conversion of oak woodlands to vineyards and other forms of intensive agriculture.

Loss of oak woodlands may also be the result of a combination of natural and human activity causes, including changes in the frequency and/or intensity of wildfires.

Lack of Regeneration of Oak Woodlands

In addition to the loss of existing trees, the future of oak woodlands in California may also be threatened by a lack of new, young oaks in certain oak species, especially valley oaks. Unless new oaks successfully sprout and grow past seedling and sapling stage so they can eventually replace the older oaks, oak woodlands will eventually die off.

Though there are many different theories regarding the contributing factors, hard data regarding whether, where, and why lack of oak regeneration is occurring for the various species is relatively scarce.

Among the potential causes most commonly cited as contributing to lack of oak regeneration are: acorn and small oak consumption by large animals (e.g. deer, wild boar, cattle and other livestock); acorn consumption, seedling consumption, and/or soil disturbance by small animals (e.g. gophers, ground squirrels, turkeys, and voles); plant diseases; water competition from invasive

plant species; changes in local water regimes (e.g. changes in groundwater table levels); and long term natural cycles.

Oak Woodlands Fragmentation

A third threat that oak woodlands face in California is that of fragmentation. Although related both to the loss of existing oaks and lack of regeneration, it deserves acknowledgement in its own right.

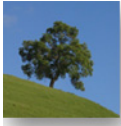
Oak woodlands, like all other natural systems, involve complex webs of inter-relationships among their various components, which must be maintained if their health and viability is to be sustained.

While it is most obvious when urban development encroaches into oak woodlands and damages or destroys this web of relationships, it is becoming more widely recognized that significant amounts of rural residential development within oak woodlands can also have adverse, though often less obvious, long-term impacts on their productive functioning.

Fragmentation of oak woodlands resulting from rural residential “ranchette” development is a growing concern in many parts of California.

As oak woodlands become more fragmented, wildlife species which benefit from large, contiguous habitats are increasingly affected. One obvious example would be mountain lions, which typically prefer large territories. Many other species are also affected to varying degrees.





OAK WOODLANDS IN SANTA CLARA COUNTY

Extensive Oak Woodlands in Rural Hillside Areas

Oak woodlands are important natural, economic, recreational, and historical features of Santa Clara County's landscape.

Oak communities constitute the predominant vegetative cover on 295 square miles, or more than 1/3 of the land area of Santa Clara County's rural hillsides and ranchlands.

Native Oak Species Found in Santa Clara County

Ten of the eighteen native oak species found in California are located in Santa Clara County, including:

- Black Oak
Quercus kelloggii
- Blue Oak
Quercus douglasii
- Canyon Live Oak
Quercus chrysolepis
- Coast Live Oak
Quercus agrifolia
- Interior Live Oak
Quercus wislizenii
- Leather Oak
Quercus durata
- Oregon Oak
Quercus garryana
- Scrub Oak
Quercus berberidifolia
- Shreve Oak
Quercus parvula var. shrevei
- Valley Oak
Quercus lobata

Categorizing Oak Woodland Communities

Several types of oaks in Santa Clara County occur in sufficient concentration to form communities. These communities are categorized by the dominant tree species and the degree of foliage cover and tree height as follows:

Forest: Closely spaced trees that provide a substantial canopy of greater than 30%.

Woodland: Trees spaced far enough apart, allowing for a variety of shrubs, herbaceous plants, and grasses in the understory, with a canopy coverage of 10-30%.

Chaparral: Evergreen shrubs with leathery leaves and relatively few plants in the understory.

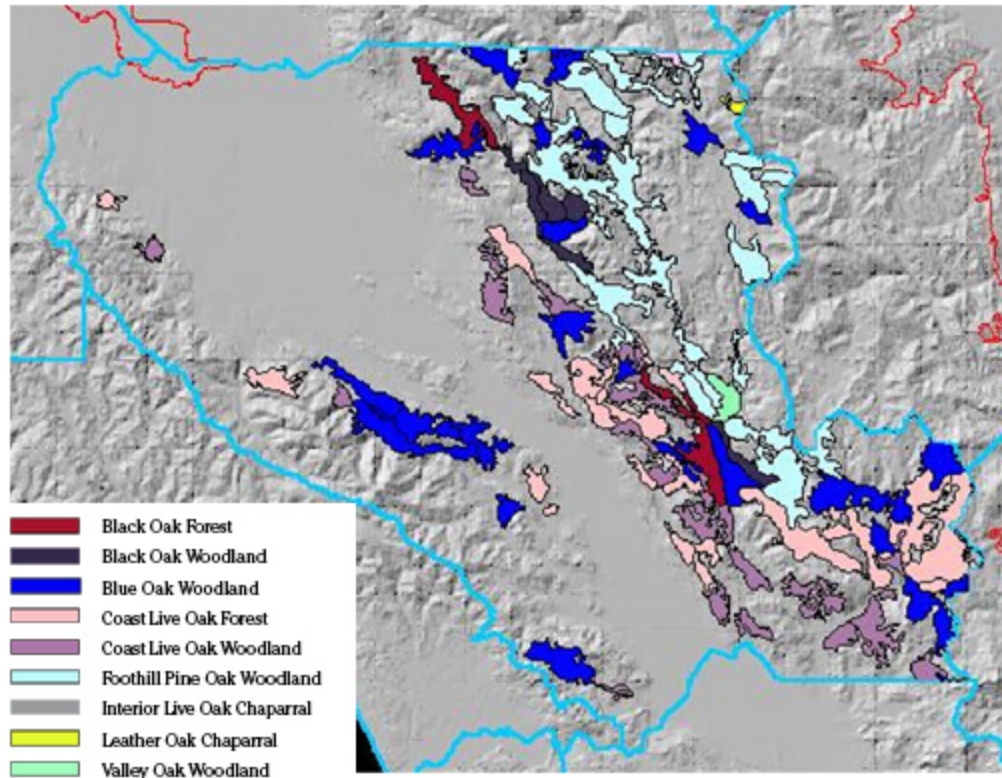
Oak Woodland Communities Found in Santa Clara County

The nine oak communities found within Santa Clara County, which collectively cover 295 square miles of the county, include:

- Black Oak Forest
- Black Oak Woodlands
- Blue Oak Woodlands
- Coast Live Oak Forest
- Coast Live Oak Woodlands
- Foothill Pine - Oak Woodlands
- Interior Live Oak Chaparral
- Leather Oak Chaparral
- Valley Oak Woodlands

The geographic location and total acreage of each of these communities are indicated on maps and charts within this chapter.

OAK WOODLANDS COMMUNITIES IN SANTA CLARA COUNTY



Source: California Gap Analysis Project, UC Santa Barbara, 1998

A Note About Oak Woodlands Data Sources

The data regarding oak woodlands communities used in preparing this plan was obtained from the California Gap Analysis Project at the University of California - Santa Barbara.

It was selected because it was a readily-available source that provided county level data regarding the spatial distribution of various kinds of oak communities in Santa Clara County.

More accurate data is currently being gathered by the California Department of Forestry and Fire Protection, the US Forest Service and other sources, but it was not available at the county level for use in this project.

When it becomes available at the county level, the data will be incorporated into this plan.

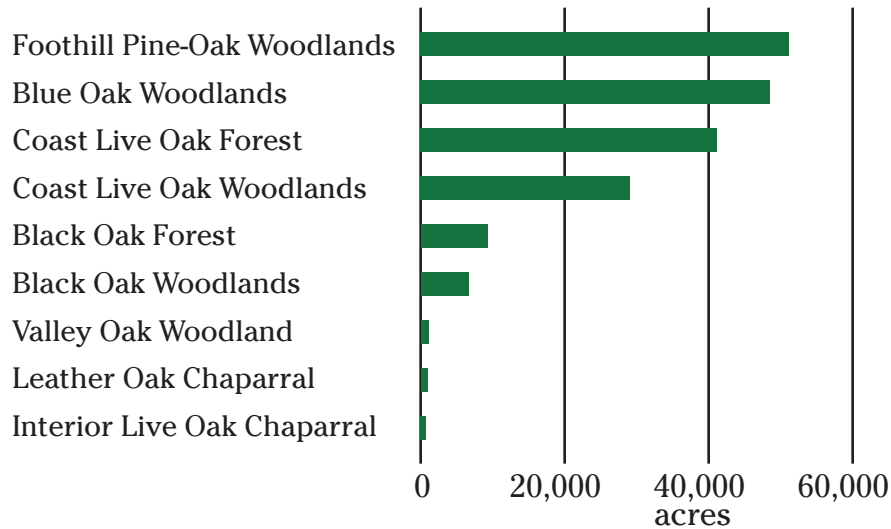
OAK WOODLAND COMMUNITIES IN SANTA CLARA COUNTY

Community	General LocationsTotal Acres*
Black Oak Forest	High elevations in the Mt. Hamilton Range8,615
Black Oak Woodlands	High elevations, further east in the Mt. Hamilton Range.7,413
Blue Oak Woodlands	Foothills of both the Santa Cruz Mtns. and the Mt. Hamilton Range.48,715
Coast Live Oak Forest	Lower elevations of both the Santa Cruz Mtns. and the Mt. Hamilton Range.40,954
Coast Live Oak Woodlands	Lower elevations, mostly within the Mt. Hamilton Range, drier locations28,901
Foothill Pine-Oak Woodlands	Mt. Hamilton Range, east of the first ridge51,510
Interior Live Oak Chaparral	Extreme northeast corner of the county within the Mt. Hamilton Range 540
Leather Oak Chaparral	Extreme northeast corner of the county within the Mt. Hamilton Range, on serpentine 548
Valley Oak Woodland	Hillsides and riparian areas on both sides of the valley1,966
	Total Acres:189,161
 (295 square miles)

* Includes only "primary" locations where concentrations of each community predominate.

Source: California Gap Analysis, University of California - Santa Barbara, 1998

OAK WOODLAND COMMUNITIES ACREAGE IN SANTA CLARA COUNTY



Note: Includes only “primary” locations where concentrations of each community predominate.

Source: California Gap Analysis, University of California - Santa Barbara, 1998

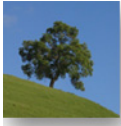
Santa Clara Valley – “Plain of the Oaks”

In 1796, long before it was “Silicon Valley” or even “The Valley of Heart’s Delight,” the Santa Clara Valley was given the name “Llanos de los Robles” or “Plain of the Oaks” by Jose Francisco Ortega as he scouted the region on behalf of Captain Gaspar de Portola.

An 1896 book about Santa Clara County, “Sunshine, Fruit and Flowers,” said that: “Nearly the entire valley was formerly covered

with groves of the majestic oak, of which, in some sections, many yet remain. They not only give the county a park like appearance, but present unmistakable evidence of the richness of the soil.”

Today, the vast expanses of oaks that once covered the Santa Clara Valley are gone, their passing commemorated only in the names of streets, businesses, shopping centers, and a few parks, schools, and cemeteries.



WILDLIFE AND PLANTS IN SANTA CLARA COUNTY'S OAK WOODLANDS

Many Species Dependent Upon Oak Woodlands

Oak woodlands have been described as having “the richest wildlife species abundance of any habitat in California,” with over 330 species of birds, mammals, reptiles, and amphibians depending on them at some stage in their life cycle.

Importance of Oak Woodlands to Birds

It has been further suggested that California's oak woodlands are among the top three habitat types in North America in terms of their number of bird species. One study identified some 60 species of birds associated with oak woodlands in California.

Oak Woodlands Bird Species in Santa Clara County

More than 30 species of birds breed within oak woodlands in Santa Clara County.

These species are dependent upon oak woodlands for food (e.g. acorns, insects, etc.) and/or shelter (e.g. nesting sites within the cavities of older oaks).

A number of other bird species, not on the list below, visit oak woodlands on a seasonal basis.

The bird species that breed within oak woodlands in Santa Clara County include:

- Acorn Woodpecker (nc)
- Ash-throated Flycatcher (nc)
- Band-tailed Pigeon (nc)
- Black-throated Gray Warbler (nc)
- Blue-gray Gnatcatcher (-)
- Brown-headed Cowbird (+)
- Bullock's Oriole (nc)
- Bushtit (nc)
- Cassin's Vireo (nc)
- Chipping Sparrow (-)
- House Wren (nc)
- Hutton's Vireo (-)
- Lark Sparrow (-)

- Lawrence's Goldfinch (nc)
- Lazuli Bunting (nc)
- Lesser Goldfinch (-)
- Lewis's Woodpecker (nc)
- Loggerhead Shrike (-)
- Northern Pygmy-Owl (nc)
- Nuttall's Woodpecker (+)
- Oak Titmouse (nc)
- Orange-crowned Warbler (nc)
- Violet-green Swallow (nc)
- Western Bluebird (nc)
- Western Kingbird (nc)
- Western Screech-Owl (nc)
- Western Scrub-Jay (-)
- Western Tanager (nc)
- Western Wood-Pewee (-)
- White-breasted Nuthatch (nc)
- White-tailed Kite (nc)
- Yellow-billed Magpie (nc)

The symbols in parentheses after each species' name indicates estimates of general population change for the species within Santa Clara County, based on Christmas and Summer Bird Counts by the Audubon Society over the past 20 years or more.

(nc) indicates no significant change in population; (-) indicates a decrease in population; (+) indicates an increase in population

Note: Changes in bird populations are provided for information purposes only and do not necessarily indicate changes in the health of oak woodlands in the county.

The Significance of Wildlife Species Abundance

The presence of so many different bird and other wildlife species should serve as a reminder that oak woodlands conservation is not just about conserving oaks. It is also about maintaining the great diversity of other species associated with oak woodlands habitats.

If the health and viability of our oak woodlands declines, so too will the diversity and abundance of the bird and other wildlife species that are dependent upon oak woodlands for food and/or habitat.

Botanical Diversity in Oak Communities

There are around 1,600 native plant species found in Santa Clara County. Between 800 and 900 of these grow in the oak communities of the county. Thus, the plants found within the oak communities account for a significant part of the botanical diversity of the county.

Many species require substantial amounts of sunlight. Hence the greatest plant diversity is found in the more open-canopied woodlands than in the forests.

Other Trees and Shrubs in Oak Communities

Besides oaks, there are other trees in these communities, such as the foothill pine (*Pinus sabiniana*), big-leaf maple (*Acer macrophyllum*), California buckeye (*Aesculus californica*), coulter pine (*Pinus coulteri*), and madrone (*Arbutus menziesii*).

Shrubs, including ceanothus, manzanita, currant, and gooseberry are found in the understory of oak communities.

Perennial Plants in Oak Communities

Herbaceous perennials are much more common than trees or shrubs in the oak communities. In springtime, spectacular flowering displays of shooting stars (*Dodacatheon spp.*), hounds tongue (*Cynoglossum grande*), indian warrior (*Pedicularis densiflora*), and paintbrush (*Castilleja spp.*) can be found.

Annual Plants in Oak Communities

Annual plants are an equally large group within the oak communities. This includes a number of grasses (poaceae),

and members of the sunflower family (asteraceae). Annuals such as chinese houses (*Collinsia spp.*), goldfields (*Lasthenia spp.*), and tidy tips (*Layia spp.*), also contribute to the spring wildflower displays

Rare and Endangered Plants in Oak Communities

Santa Clara County has 85 plants on the California Native Plant Society's *Inventory of Rare and Endangered Plants of California*. Of these, about 45 are found in oak communities. These include some very rare plants:

The Mt. Hamilton Jewel-flower, (*Streptanthus callistus*), is known from only four occurrences on the east side of Mt. Hamilton. The Metcalf Canyon jewel-flower (*Streptanthus albidus ssp. albidus*), is known only from Metcalf Canyon. The Mt. Hamilton lomatium (*Lomatium observatorium*), is found on the top of Mt. Hamilton. The only significant population of coyote ceanothus (*Ceanothus ferrisiae*), is found in the foothill pine oak woodland near Anderson reservoir.

A number of these rare plants populations are on public lands, such as Henry Coe State Park, some in conservation easements, and others on private property are being conserved voluntarily by the owners of the land.

The rare plants of Santa Clara County are an important resource and element in plant diversity. Loss or fragmentation of oak communities would adversely affect this resource.

Invasive Plants in Oak Communities

In Santa Clara County there are about 80 plants which are listed in California Invasive Plant Council's *Exotic Pest Plants of Greatest Ecological Concern*. Of these, about 30 are found within oak

communities. These include 8 thistles, 7 grasses, 3 brooms, and members of the mustard, parsley, and other families.

Most of these invasive plants are found in open areas, particularly areas that have been disturbed. An exception is Italian thistle (*Carduus pycnocephalus*), which grows well in shade and can form thick colonies right up to the base of oak trees. These infestations crowd out native species and may even affect oak regeneration.

Yellow starthistle (*Centaureum solstitialis*), is considered a major threat to both agricultural lands and wildlands of Santa Clara County. It is a serious problem within oak communities, and is the subject of control programs from several public agencies, including the Santa Clara Weed Management Area (WMA).

Other invasive species in oak communities include milk thistle (*Silybum marianum*), tocolote (*Centaureum melitensis*), and purple starthistle (*Centaureum calcitrapa*). The brooms, particularly French broom

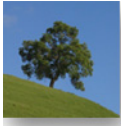
(*Genista monspessulana*), and Scotch broom (*Cytisus scoparius*), can grow in open canopy forests and crowd out natives.

Control strategies for these species are available, some are labor intensive. Invasive grasses such as Italian wild rye (*Lolium multiflorum*), and wild oats (*Avena spp.*), can dominate open areas. Managed grazing has controlled *Lolium* in some areas. Few effective control techniques have been developed for wild oats.

Invasive plants are a major threat, both to agricultural lands and wildlands in Santa Clara County. Major efforts are in place to identify new species before they spread and to control species that are spreading.

There are a number of public and private organizations involved in these efforts. The Santa Clara Weed Management Area website contains additional information about invasive species that have become problems in Santa Clara County.





OWNERSHIP OF OAK WOODLANDS IN SANTA CLARA COUNTY

Ownership of Oak Woodlands in Santa Clara County

Statewide, it is estimated that 80% of oak woodlands are on privately-owned lands.

In Santa Clara County, approximately 70% of oak woodlands are on privately-owned lands, and the remaining 30% are on publicly-owned lands.

Need for Both Public and Private Action

Since the great majority of oak woodlands are found on private lands, successful oak woodlands conservation in Santa Clara County will depend heavily upon voluntary efforts by private landowners.

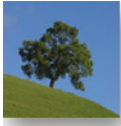
Efforts by public agencies will also be important, particularly in the Mount Hamilton Range and the Santa Cruz Mountains where there are extensive areas of oak woodlands on publicly-owned parks, open space, and watershed lands.

Need for Voluntary Cooperation

In addition, since publicly- and privately-owned oak woodlands often adjoin one another, successful oak woodlands conservation activities will also require voluntary cooperation and coordination of efforts by public and private landowners.

Oak Woodlands Ownership in Santa Clara County





POTENTIAL THREATS TO OAK WOODLANDS IN SANTA CLARA COUNTY

Multiple Perceived and Potential Threats

Countywide urban development policies that have confined urban development primarily to flatland areas and prevented urban development in rural unincorporated areas, together with limited road access to much of the Mt. Hamilton Range within the county, have to a great extent prevented major urban encroachment into oak woodlands areas.

However, oak woodlands are still at risk in Santa Clara County to an unknown extent by such threats as lack of oak regeneration, Sudden Oak Death, invasive species, changes in the frequency and intensity of fires within oak woodlands, and habitat fragmentation.

Lack of Oak Regeneration

There is a general perception that lack of oak regeneration (i.e. a lack of small to mid-size oaks to eventually replace older oaks as they die off) is a problem in Santa Clara County. However, since very little, large scale scientific research appears to have been done in this county, it is a problem that lacks documentation.

Nonetheless, it is still perceived as a significant concern that, if not addressed, could, in the most extreme circumstances, eventually lead to the disappearance of oak woodlands from the Santa Clara County landscape.

A significant facet of the problem is that, for the most part, it is invisible to most residents of the county. It is invisible both because of the geographic distance between most oak woodlands and the county's major populated areas, and because the problem lies in what is missing from the landscape (i.e. young oak trees) – and therefore unseen – rather than what is present on the landscape.

It's a "What's wrong with this picture?" kind of problem. When pointed out to viewers, the lack of younger oaks on the landscape often generates an "aha! moment" in which they realize that they have missed seeing something that was otherwise obvious and right before their eyes, but which they hadn't "seen" until then.

Sudden Oak Death

Another potential threat to oaks in Santa Clara County is Sudden Oak Death, a disease that was first noticed in California back in 1995, when large numbers of coast live oaks began to die in Marin County. It has since spread to fourteen of California's coastal counties (including Santa Clara County) and has infected hundreds of thousands of trees, many of which have subsequently died.

It can kill coast live oak, black oak, canyon live oak, Shreve's oak and tanoak. It also infects many other plant species.

Its cause was initially a mystery, but it has subsequently been traced to a fungus-like pathogen called *Phytophthora ramorum* [phy-TOFF-thoruh ra-MOR-um]. Although its cause is now known, no cure has yet been found.

Sudden Oak Death has infected a number of trees in the northern Santa Cruz Mountains within Santa Clara County. While its geographic range within this county is still relatively limited, the potential for it to spread and kill more of our oaks should not be discounted. It is a problem that merits close attention (both with regard to its potential to spread within our county and with regard to research as to potential prevention and/or cure of Sudden Oak Death).

Potential Future Development Threats

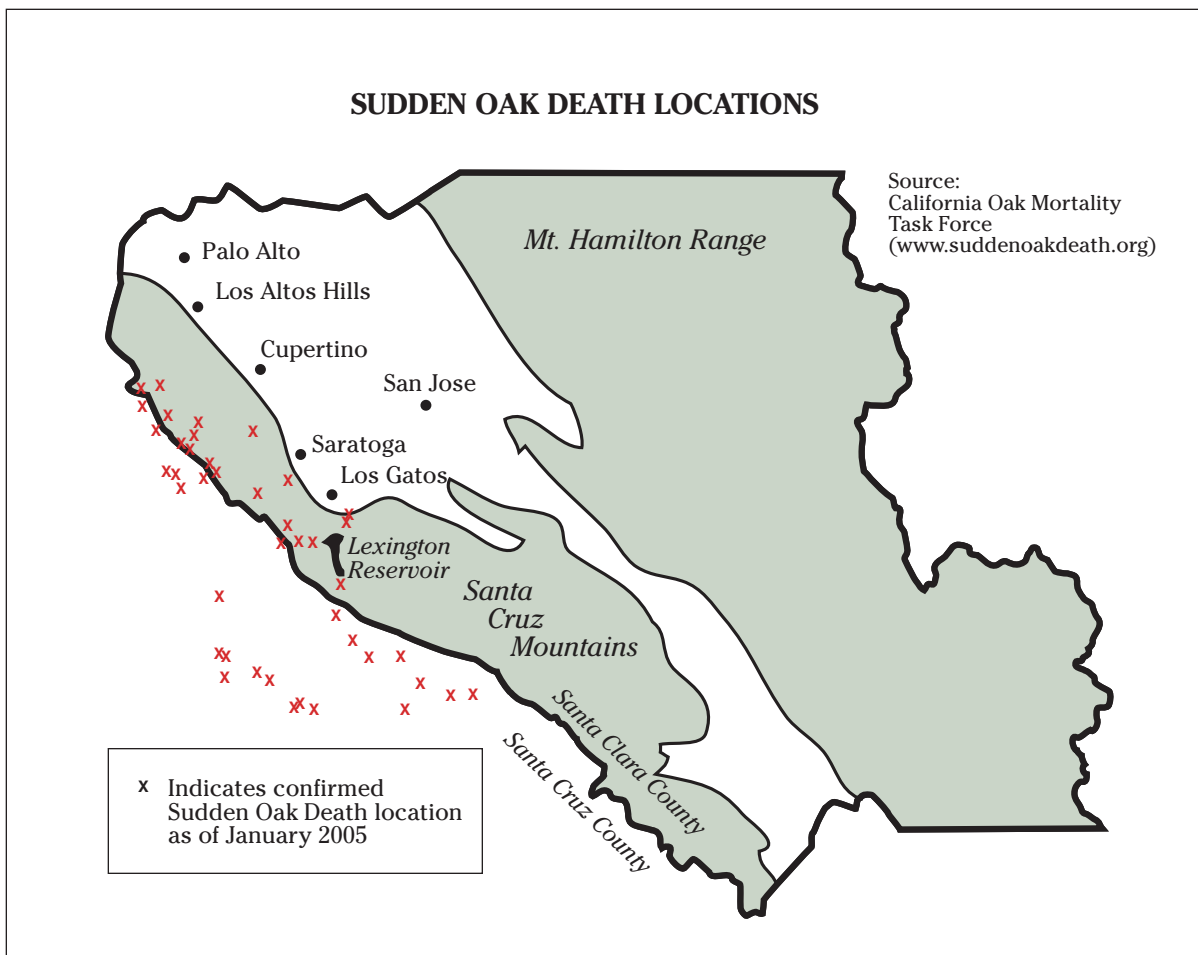
Although, in recent years, oak woodlands in Santa Clara County have not faced major threats from urban development, large-scale rural residential development, and other land development activities, that is no guarantee that they may not face such threats in the future as development pressures increase.

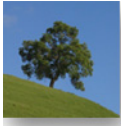
For that reason, it will be important that local government planners and land use decision makers be made more aware of the values of oak woodlands and how their plans, policies, and decisions can affect them.

Greater awareness of the importance of oak woodlands among the general public can also play a significant role in protecting Santa Clara County's oak woodlands from the kinds of threats that they have been experiencing in other counties in California.

Need to Monitor Other Potential Threats

In addition to potential development-related threats, it will also be important to monitor possible threats from disease, invasive species, and other factors that may adversely affect oak woodlands health and viability.





OAK WOODLANDS IN THE COUNTY'S GENERAL PLAN

The County's General Plan

Although the threats to the county's oak woodlands have been relatively invisible, the importance of oak woodlands and their conservation are clearly recognized within the County's current General Plan, adopted by the Board of Supervisors, as the following excerpts from the Rural Unincorporated "Resource Conservation" chapter demonstrate:

[excerpt from Santa Clara County General Plan]

Status of Oak Woodlands and Other Hardwoods Statewide

In recent years, there has been increasing concern statewide over the loss of hardwoods, particularly oaks. Not only are hardwoods being lost due to development and urbanization, but in some regions, regeneration has not been as successful as in the past. One reason for concern is that oak woodlands typically thrive at low-to-moderate elevations and on gently sloping terrain, areas which also have greater development potential than those with steeper slopes and land instability constraints.

To better address these concerns, a statewide management strategy is being developed by the State Board of Forestry. It has recommended, for example, that for areas where hardwood forests are most threatened, extensive tracts of oak woodlands and other hardwoods be preserved intact, to avoid fragmentation, a phenomenon which greatly reduces the amount and quality of undisturbed, or "interior" habitat beneficial to wildlife. The State Board also stresses the growing importance of cutting techniques that increase regeneration and of replanting on both private and public lands, if regeneration fails to keep pace with losses.

Status of Oak Woodlands and Other Hardwoods in Santa Clara County

Currently, the status of most oak woodlands and other hardwood species in Santa Clara County seems secure overall. Despite a few isolated instances in which permitted harvest rates have been violated, private landowners have generally recognized the ecological as well as economic values of maintaining hardwood habitats. For large properties, in particular, permitted, non-commercial harvest rates are not often approached, given the vast acreages of oak woodlands involved, and the limited commercial viability of harvesting for firewood.

Land use policy can also be highly instrumental in guiding the location of development, roads and utilities to avoid fragmenting extensive woodland areas. The County's current minimum parcel sizes, development clustering incentives, and open space planning and acquisition, are a few of the most common methods for avoiding large scale tree removal resulting from public and private projects. In other jurisdictions, transfer of development rights (TDR) from critical resource areas to other areas more capable of accommodating

[continuation of excerpt from County's General Plan]

development has also been employed. Finally, environmental assessments and project mitigation requirements will continue to play a major role in promoting conservation, especially when rare species, such as the valley oak are involved.

Therefore, it is unlikely that in the near future there will be significant overall impacts to hardwood habitats throughout most of the rural unincorporated areas. Of course, development on smaller, legal non-conforming parcels has been and will continue to be of some concern in instances which involve removing a higher percentage of trees for approved building sites.

If future studies or other evidence becomes available indicating a change in the status of oak and other hardwood habitats, currently allowable harvest rates and policies affecting tree cutting should be reconsidered.

The strategies and policies of the County's General Plan are also supportive of oak woodlands conservation in various ways.

- The "Habitat and Biodiversity" section within the countywide "Resource Conservation" chapter contains the following four basic strategies, each of which can be implemented, in part, through the adoption and implementation of this oak woodlands conservation plan:
 - Strategy 1: Improve current knowledge and awareness of habitats and natural areas
 - Strategy 2: Protect the biological integrity of critical habitat areas
 - Strategy 3: Encourage habitat restoration
 - Strategy 4: Evaluate effectiveness of environmental mitigations

More specifically, the General Plan contains the following policies that address oak woodlands conservation:

- The County shall provide leadership in efforts to protect or restore valuable natural resources, such as wetlands, riparian areas, and woodlands, [emphasis added] and others:
 - a. for County-owned lands; and
 - b. through multi-jurisdictional endeavors.(Policy C-RC 02, Countywide Resource Conservation chapter)
- Impacts from new development on woodland habitats should be minimized by encouraging:
 - a. clustering of development to avoid critical habitat areas, where clustering is permitted;

-
- b. inclusion of important habitat within open space areas for projects requiring open space dedication;
 - c. siting and design of roads, utility corridors and other infrastructure to avoid fragmentation of habitat; and
 - d. acquisition or avoidance of critical habitat areas.

(Policy R-RC 047, Rural Unincorporated Resource Conservation chapter)

- Limited firewood collecting for personal use and private sale not requiring use of heavy equipment shall be encouraged for beneficial removal of dead or downed trees. Landowners should consider retaining some portion of dead or downed trees that are of habitat value and that pose no safety risks.

(Policy R-RC 048, Rural Unincorporated Resource Conservation chapter)

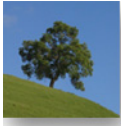
The County's "Preserving Oak Trees" Guide

Further demonstrating its commitment to oak woodlands conservation, the County Planning Office undertook a joint project with the University of California Cooperative Extension that resulted in the publication in 1995 of "Preserving Oak Trees: Quick Reference Mitigations for Planning Staff."

This brief report contains:

1. Information regarding County policies and regulations applicable to oaks and oak woodlands,
2. Advice to landowners regarding care of oaks
3. Advice to County Planning staff regarding how to review proposed development plans for their impacts on oaks





STRATEGIES FOR CONSERVING SANTA CLARA COUNTY'S OAK WOODLANDS

Action Needed Despite Limited Information

An objective starting point for increasing efforts to conserve oak woodlands in Santa Clara County needs to be an acknowledgement that there is very limited specific information about current conditions and trends with regard to local oak woodlands.

As discussed earlier in this plan, some of the major perceived threats – lack of oak regeneration, Sudden Oak Death, and habitat fragmentation – are invisible to most residents, local governments, and community organizations within the county.

Nonetheless, the importance of oak woodlands to this county's environment and quality of life warrant increased efforts in the short term in order to avoid larger, more costly, and more complex problems in the long term. Furthermore, since oak woodlands enhancement may require many years to achieve significant results, the sooner these efforts are begun, the better.

Need for Flexibility, Innovation, and Partnerships

The basic strategies for oak woodlands conservation in Santa Clara County proposed in this plan have as their shared foundation a belief that effective actions will require flexibility, innovation, and partnerships.

Faced with the relative lack of information about current, local oak woodlands conditions and trends, it would be unwise to adopt strategies that are too detailed and inflexible. What seem like important actions today, may seem unimportant as time passes and more information becomes available or as first level priority actions have been completed that may

suggest other, unanticipated initiatives that should be pursued.

Innovation will need to be another underpinning of local oak woodlands conservation efforts. Innovation will be needed to find cost-effective approaches during a time of limited financial resources. It will also be necessary because some of the traditional or conventional activities that have already been tried have met with relatively limited success.

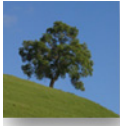
Finally, it is important to realize that effective actions will require partnerships of various kinds. Some of these partnerships will arise from the need for information sharing between technical experts and public and private landowners. Other partnerships may arise from the need to share costs of particular conservation activities. And yet other partnerships may arise from the need to have consistent conservation activities occurring across multiple, adjacent properties with different owners.

For all of the preceding reasons, the strategies proposed in this plan are intended to promote flexibility, innovation, and partnerships.

Notes About Strategies and Implementation Examples

The strategies in this plan are numbered for ease of reference, not to suggest priorities.

The implementation examples presented are intended primarily to stimulate thought, and not to limit the array of implementation activities that could or should be undertaken or that should receive grant or other funding.



STRATEGY #1: IMPROVING OUR KNOWLEDGE OF LOCAL OAK WOODLANDS

Lack of Local Baseline Data

It is difficult to assess the severity of some of the threats facing local oak woodlands when there is so little hard data about local oak woodlands on which to base decisions.

There is lack of baseline inventories of oak woodlands in Santa Clara County to use in assessing conditions and monitoring trends. (A study of oaks on Stanford University lands conducted in the mid-1990s is one of the few exceptions.)

Due to the lack of specific, countywide data regarding oak regeneration rates, etc., it is somewhat difficult to establish priorities regarding where to focus oak woodlands conservation efforts and resources.

For this reason, gathering sound scientific information and monitoring conditions over time should be one of the basic strategies for improving oak woodlands conservation in Santa Clara County.

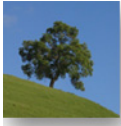
Making use of data and studies (e.g. regarding oak regeneration techniques or sudden oak death) conducted elsewhere in California that can be applied within this county is also an important element of this strategy for improving our knowledge of local oak woodlands.

Implementation Examples

The following are only a few illustrative examples intended to suggest how this strategy could potentially be implemented. Other innovative projects or activities consistent with the intent of this strategy are encouraged.

- Undertake projects to gather baseline data regarding current oak woodlands conditions in Santa Clara County.
- Establish a website dedicated to oak woodlands conservation in Santa Clara County. Provide links from that site to existing studies and data regarding oak woodlands in Santa Clara County available on other websites.
- Prepare a manual with simple instructions to aid landowners, both public and private, in conducting periodic surveys of the condition of the oak woodlands on their lands.
- Encourage local and nearby universities to undertake more research projects relating to the health and long-term viability of oak woodlands in Santa Clara County
- Identify, and periodically review, oak woodlands conservation priorities in Santa Clara County





STRATEGY #2: INCREASING OUTREACH AND EDUCATION

Need for Greater Oak Woodlands Awareness and Understanding

Outreach and education should be another important cornerstone strategy for improving and maintaining the health and viability of oak woodlands in Santa Clara County.

These efforts should be directed toward several key audiences:

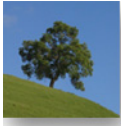
- The public at large
 - Emphasis: Increasing awareness of the economic, social and ecological values associated with oak woodlands, and the need for increased efforts to conserve them.
- Private landowners within oak woodlands areas
 - Emphasis: Increasing awareness of the importance of oak woodlands and of the technical and financial resources that may be available to them to improve oak woodlands conservation practices on their lands.
- Public agency land managers and decision makers
 - Emphasis: Increasing awareness of the importance of oak woodlands and of the technical and financial resources that may be available to them to improve oak woodlands conservation practices on their lands.
- Local government land use planners and decision makers
 - Emphasis: Increasing awareness of the economic, social and ecological values associated with oak woodlands, and how land use plans and policies can impact them.



Implementation Examples

The following are only a few illustrative examples intended to suggest how this strategy could potentially be implemented. Other innovative projects or activities consistent with the intent of this strategy are encouraged.

- Establish a website with basic information about oak woodlands in Santa Clara County and their ecological, economic, and social values.
- Develop a series of workshops on oak woodlands ecology and management for local landowners (public and private), policy makers, resource agencies, academics, etc.
- Develop basic brochures regarding oak woodlands ecology and management
- Organize an annual, countywide “Oaks Appreciation Day (or Week or Month)” in Santa Clara County, and encourage events such as oak plantings and guided interpretive walks in oak woodlands areas.
- Conduct an annual essay competition for school students regarding the importance of oak woodlands.
- Sponsor oak art competitions and exhibitions to promote oak awareness
- Distribute oak awareness information to teachers, landowners, and local government decision makers.



STRATEGY #3: PROMOTING PILOT PROJECTS AND SMALL EXPERIMENTS

Benefiting from Experiments and “Trial and Error” Learning

Because oak woodland ecosystems involve complex webs of inter-related and dynamic relationships that may vary from location to location and from time to time, there appear to be no universal formulas for promoting their regeneration or ensuring their long term health and viability.

The “science” of oak woodlands management still contains many gaps and uncertainties. For this reason, local experimentation with a variety of techniques for oak woodlands management will be critical to future success.

Pilot projects and small experiments to demonstrate or test different methods of oak woodlands conservation are, therefore, an important strategy encouraged by this plan.

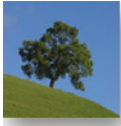
Information sharing regarding successful (and unsuccessful) projects or experiments can play a significant role in increasing the overall effectiveness of local oak woodlands conservation.



Implementation Examples

The following are only a few illustrative examples intended to suggest how this strategy could potentially be implemented. Other innovative projects or activities consistent with the intent of this strategy are encouraged.

- Encourage local and nearby colleges and universities, as well as appropriate local, state, and federal agencies, and others to undertake studies and research projects related to oak woodlands conservation, in collaboration with public agencies and private landowners in Santa Clara County.
- Prepare and distribute easy to understand publications documenting “best management practices” for oak regeneration projects by public and private landowners.
- Establish an awards program to recognize public and private landowners who conduct oak regeneration and other oak woodlands conservation projects on their lands.
- Conduct workshops to demonstrate oak regeneration and oak woodlands conservation techniques to public and private landowners.



STRATEGY #4: PROVIDING INCENTIVES TO LANDOWNERS

Helping to Overcome Economic Obstacles to Oak Woodlands Conservation

Oak woodlands conservation projects and activities, particularly those involving installation of new facilities, will have economic costs associated with them (e.g. the cost of purchasing grazing cages or fencing to protect oak saplings from being browsed).

The costs may vary substantially, depending upon the costs of the equipment or facilities needed, the costs of installing and maintaining them, the size of the property involved, etc.

In some cases, particularly where the costs are relatively small, private landowners may be willing and able to pay these costs themselves. In others, they may not.

To promote participation by private landowners in oak woodlands conservation activities, it may be necessary to establish cost-sharing arrangements or other economic incentives. Some of these incentives may be in the form of financial payments, others could, for example, involve volunteer labor to assist with such tasks as the installation of new oak conservation facilities or the planting of young oaks.

Other economic incentives might involve the purchase of conservation easements from willing sellers that provide payments to private landowners of oak woodlands in exchange for their agreement to limit

certain development opportunities or other change management activities on their lands so they are more beneficial to oak woodlands.

Public Agencies Need Help Too

While incentives to private landowners can be an important tool for achieving oak woodlands conservation, it should also be acknowledged that public agencies may need financial and other incentives to be able to undertake the kinds of activities and programs necessary to help assure future health and viability of oak woodlands.

For public, land-owning agencies (such as parks departments) for which provision of public recreation is a major responsibility, funding for land management activities often receives relatively low priority, particularly during difficult budget times.

Consequently, state grant programs, such as the California Oak Woodlands Conservation Program, can play important roles in funding oak woodlands conservation projects by local agencies.

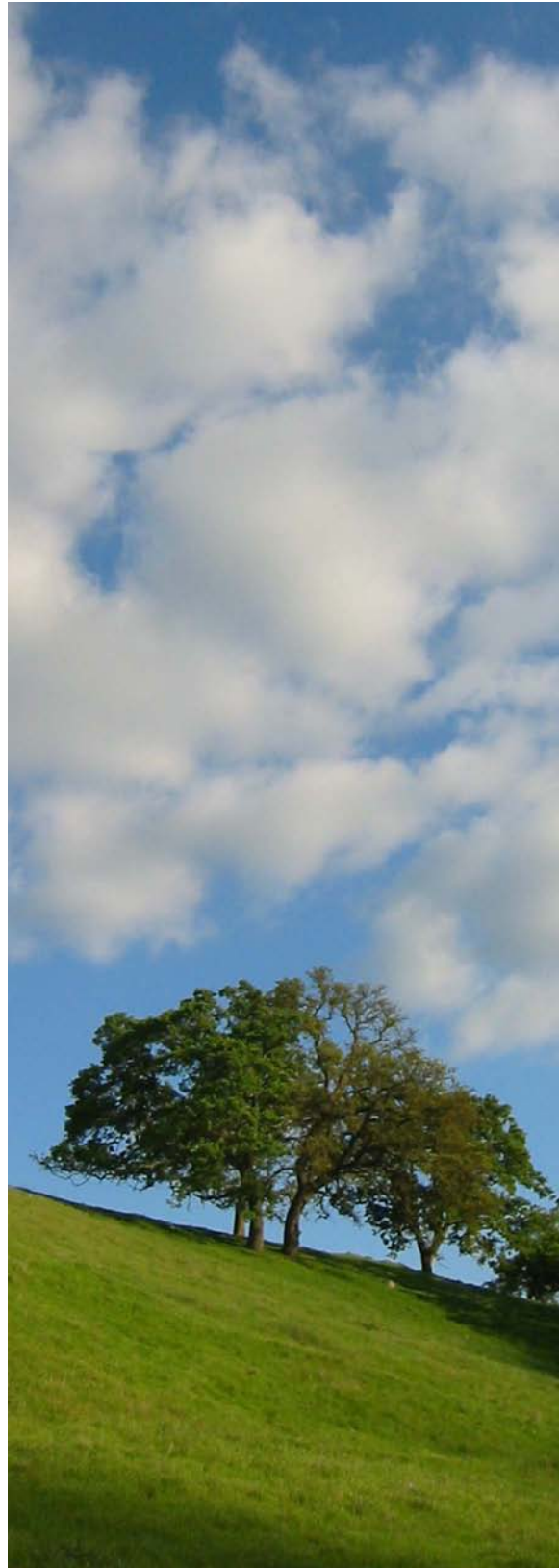
Implementation Examples

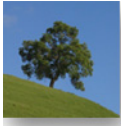
The following are only a few illustrative examples intended to suggest how this strategy could potentially be implemented. Other innovative projects or activities consistent with the intent of this strategy are encouraged.

- Establish new programs or expand existing ones to provide volunteers to assist with restoration activities on lands whose owners seek such assistance. Restoration activities could include protecting existing oak seedlings and saplings, controlling noxious plant invaders, and planting saplings from acorns collected on-site or at least from within the same watershed.



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- Establish a program to provide young oak saplings that are grown from locally-collected acorns at no or low cost to private landowners who agree to plant them and maintain them in accordance with guidelines that will help assure their survival.
 - Purchase, from willing sellers, conservation easements that will protect and enhance significant oak woodlands on the lands involved.
 - Identify obstacles to sustaining working landscapes that are compatible with oak conservation and promote public policy to address these obstacles.
 - Establish recognition programs to acknowledge the contributions of:
 - Landowners who participate in oak woodlands conservation activities and employ sound oak conservation land management practices on their lands
 - Volunteers and donors who support oak conservation programs and activities





STRATEGY #5: ENCOURAGE COLLABORATIVE ACTION

Complexity, Ownership Patterns, and Insufficient Resources Create Need for Collaboration

Effective oak woodlands conservation efforts in Santa Clara County will require cooperation and collaboration among private landowners, public agencies, and nonprofit organizations.

The factors contributing to this need for cooperation and collaboration include:

- The complexity of the issues involved and the need for expert assistance that individual landowners (public or private) may lack
- The division of ownership of oak woodlands ecosystems among many different public, private, and nonprofit landowners
- The potential benefits of having consistent land management practices on adjacent lands under different ownerships
- Costs of oak conservation activities or facilities that may exceed the financial resources of individual landowners (public or private)

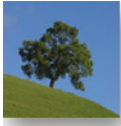
For all of these reasons, encouraging collaborative action is one of the basic strategies proposed for achieving oak woodlands conservation in Santa Clara County.

Implementation Examples

The following are only a few illustrative examples intended to suggest how this strategy could potentially be implemented. Other innovative projects or activities consistent with the intent of this strategy are encouraged.

- Establish ongoing forums and/or organizations for discussion and information sharing among landowners, technical experts, and others concerned about oak woodlands conservation in Santa Clara County
- Establish training programs to familiarize landowners (public and private) with “best management practices” for oak woodlands conservation
- Look for partnership opportunities when planning oak woodlands conservation projects or activities
- Publicize successful, collaborative oak woodlands conservation projects and activities
- Prepare and distribute materials identifying technical information and assistance available from public agencies, colleges and universities, and nonprofit organizations





STRATEGY #6: MAINTAINING CURRENT LAND USE PLANS AND POLICIES

Land Use Policies Are Critical to Oak Woodlands Conservation

Among the greatest threats to oak woodlands, from a statewide perspective, have been urban development, large-scale rural residential development, and conversion of oak woodlands to intensive agriculture, such as vineyards.

These threats have been far less significant in Santa Clara County, in large part due to:

- Countywide urban development policies that have existed in this county for more than three decades, which generally guide urban development away from hillside areas where most oak woodlands are located, and
- Land use policies in the County's General Plan that have precluded large-scale rural residential development within hillside and ranchland areas.

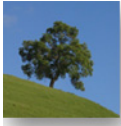
Maintaining these existing policies is an important strategy for oak woodlands conservation, if Santa Clara County is to avoid the problems that have resulted in other counties that do not have such "oak-friendly" land use policies.

Implementation Examples

The following are only a few illustrative examples intended to suggest how this strategy could potentially be implemented. Other innovative projects or activities consistent with the intent of this strategy are encouraged.

- Maintain current urban development policies and rural land use policies in the County's General Plan that support oak woodland conservation.
- Encourage cities adjacent to oak woodland areas to adopt urban development and land use policies that conserve oak woodlands.
- Promote public policies that work towards sustaining working landscapes that are compatible with oak conservation.





STRATEGY #7: PLANNING FOR OAK WOODLANDS CONSERVATION ON PUBLIC LANDS

Oak Woodlands in Public Ownership

An estimated 30% of Santa Clara County's remaining oak woodlands are located on lands owned by public parks or open space agencies. Some additional oak woodlands are on lands owned by nonprofit land conservation organizations.

This creates both obligations and opportunities for these public agencies and nonprofit land conservation organizations to conserve oak woodlands on the lands subject to their stewardship.

Need for Oak Conservation Elements in Land Management Plans

Most public agencies and nonprofit land conservation organizations prepare land management plans for the lands they acquire. These plans typically identify such things as the kinds of facilities, if any, that are to be built on the site, as well as areas of particular environmental sensitivity or importance that need to be protected and/or managed.

It is important that these land management plans adequately address oak woodlands conservation issues, and establish clear goals and the actions necessary to achieve them.

Need for Periodic Reporting on Plan Implementation

Plans, even those adopted with the very best of intentions, are generally only as good as their implementation.

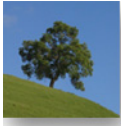
For that reason, there should be ongoing monitoring and periodic reporting on the progress that is being made toward their implementation.

Implementation Examples

The following are only a few illustrative examples intended to suggest how this strategy could potentially be implemented. Other innovative projects or activities consistent with the intent of this strategy are encouraged.

- Include oak woodlands conservation elements in land management plans prepared for publicly-owned parks and open space lands, as well as those acquired by nonprofit land conservation organizations
- Monitor and periodically report on progress toward achieving the goals established for oak woodlands conservation in land management plans





CONCLUSION: THE INGREDIENTS NECESSARY FOR SUCCESS

Need for a Long Term Perspective, Ongoing Efforts, and Inspirational Motivation

Oak woodlands conservation needs to be viewed from a long term perspective.

It is a goal that will require significant effort, over an extended period of time, by a wide array of private landowners, public agencies, nonprofit organizations, and community volunteers.

One way to motivate and sustain such widespread and sustained efforts may be to identify the overall effort as a “legacy” project aimed at assuring that current generations will pass on healthy and productive oak woodlands landscapes to future generations.

Projects or “causes” that succeed in establishing such noble goals generally have less difficulty attracting the financial and human resources that they need in order to be successful, despite numerous obstacles and frustrations that may be encountered along the way.

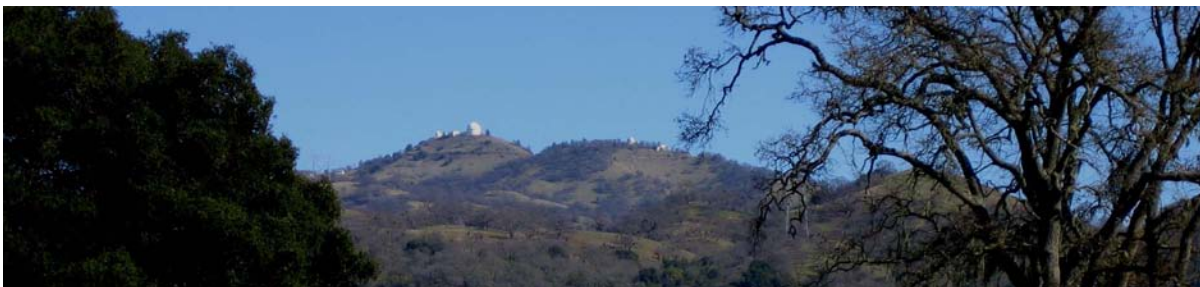
Need for More Innovative, Proactive Public and Private Land Management

A second ingredient that will be required for oak woodlands conservation to succeed over the long term will likely be new attitudes and land management practices by both public and private land owners.

The kinds of long term threats facing oak woodlands, particularly habitat fragmentation, disease, and regeneration cannot be successfully addressed with passive, “let nature take care of itself” approaches to land management.

Addressing these threats successfully will require:

- More observation and monitoring by public and private landowners of oak woodland conditions and trends on their lands,
- More active effort by public and private landowners to nurture and protect young oak seedlings and saplings,
- More study and understanding by public and private landowners of oak ecosystem dynamics, including not just the dynamics of the oaks themselves, but also the numerous birds and other wildlife species dependent upon oak woodlands
- More innovative approaches to land management by public and private landowners
- Greater understanding of the actual threats facing oak woodlands in Santa Clara County



Need for Collaborative Effort

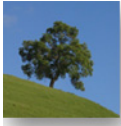
In reality, the challenges of oak woodlands conservation are beyond the understanding and resources of any one landowner, agency, jurisdiction, or organization.

The only way these challenges can be met will be through collaborative efforts among:

- Private and public land owners;
- Agencies, organizations, and institutions with technical knowledge regarding oak woodlands dynamics;
- Nonprofit organizations with staff and volunteers who can invest time and energy working on oak woodlands conservation and education projects;
- Private foundations and public grant agencies willing to provide funding to support innovative projects with the potential to make significant contributions to oak woodlands conservation, and
- Local government leaders willing to serve as champions and community educators on behalf of oak woodlands conservation

Adoption of this Oak Woodlands Management Plan for Santa Clara County will, hopefully, serve as a stimulus for such collaborative efforts.





APPENDIX A: OAK WOODLANDS INFORMATION SOURCES – PUBLICATIONS

ONLINE PUBLICATIONS

A “Bird’s-Eye-View” of Oak Woodland Conservation: A Collaborative Venture by California Partners in Flight

Steve Zack, University of California’s Integrated Hardwood Range Management Program (IHRMP), 1999
<http://danr.ucop.edu/ihrmp/oak93.htm>

A New Tool for Conserving Oak Woodlands: The California Rangeland Trust (CRT)

Steve Sinton, University of California’s Integrated Hardwood Range Management Program (IHRMP),
<http://danr.ucop.edu/ihrmp/oak85.htm>

A Plague of Plants: Controlling Invasive Plants in Santa Cruz County

Wildlands Restoration Team, 2002
http://www.wildwork.org/website/what/what_intro.html

California Oaks and Deer

Barret A. Garrison, University of California’s Integrated Hardwood Range Management Program (IHRMP), 1992
<http://danr.ucop.edu/ihrmp/oak47.htm>

Conservation of Oak Woodlands: Recognizing the Values

Gregory A. Giusti, California Oak Foundation, ,
www.californiaoaks.org/ExtAssets/conserv.pd

Feral Pigs and Oak Woodland Vegetation

James W Bartolome, Barbara Allen-Diaz, Pete van Hoorn, Jim Robbins, University of California’s Integrated Hardwood Range Management Program (IHRMP), 2000

<http://danr.ucop.edu/ihrmp/oak103.htm>

Fire in California’s Oak Woodlands

Douglas McCreary, University of California’s Integrated Hardwood Range Management Program (IHRMP), 2004
<http://danr.ucop.edu/ihrmp/>

Grazing in Oak Woodlands: Does It Affect Bird Communities?

Kathryn Purcell and Jared Verner, University of California’s Integrated Hardwood Range Management Program (IHRMP), 1997
<http://danr.ucop.edu/ihrmp/oak54.htm>

How to Grow California Oaks

Douglas D. McCreary, University of California’s Integrated Hardwood Range Management Program (IHRMP), 1995
<http://danr.ucop.edu/ihrmp/oak04.htm>

Oak Habitat Restoration Project: Ten Years of Oak Restoration in City of Walnut Creek Open Spaces

Ralph Kraetsch, California Oak Foundation,
http://www.californiaoaks.org/html/oak_tree_care.html

Oak Regeneration (bibliography)

University of California’s Integrated Hardwood Range Management Program (IHRMP),
<http://danr.ucop.edu/ihrmp/resregen.html>

Oak Tree Care: Care of California’s Native Oaks

Sharon G. Johnson, Sara S. Gustafson, California Oak Foundation, ,

www.californiaoaks.org/ExtAssets/oakcaresec.pdf

**Oak Woodland Bird Conservation Plan:
A Strategy for Protecting and Managing
Oak Woodland Habitats and Associated
Birds in California**

Dr. Steve Zack, Point Reyes Bird
Observatory / Partners in Flight, 2002
<http://www.prbo.org/calpif/htmldocs/oaks.html>

**Oak Woodland Policies of 41 California
Counties**

University of California's Integrated
Hardwood Range Management Program
(IHRMP), 2000
<http://danr.ucop.edu/ihrmp/county/>

Plant Guides and Fact Sheets

US Department of Agriculture
Natural Resources Conservation
Service (NRCS)
<http://plants.usda.gov>
[fact sheets available for: Blue Oak,
California Black Oak, California White
Oak (aka Valley Oak), Canyon Live Oak,
Coast Live Oak, Interior Live Oak]

**Proceedings of the Fifth Symposium on
Oak Woodlands: Oaks in California's
Changing Landscape**

USDA Forest Service,
<http://www.fs.fed.us/psw/publications/documents/gtr-184/>

**Restoring Oak Woodlands in California:
Theory and Practice**

Elizabeth A. Bernhardt, Tedmund J.
Swiecki, Phytosphere Research, 2001
<http://phytosphere.com/restoringoakwoodlands/oakrestoration.htm>

Stop the Spread of Sudden Oak Death

California Oak Mortality Task Force,
2004
<http://www.suddenoakdeath.org>

Sudden Oak Death in California

University of California Integrated Pest
Management Program, 2002
<http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn7498.html>

**The Effects of Development on Oak
Woodland Wildlife: Fragmentation of
Woodland Habitats**

Tom Scott, University of California's
Integrated Hardwood Range
Management Program (IHRMP), 1991
<http://danr.ucop.edu/ihrmp/oak45.htm>

**The Oak Woodlands Conservation
Act of 2001: Program Application and
Guidelines**

California Wildlife Conservation Board,
2004
www.wcb.ca.gov/pdf/oakprogrammanualApplication.pdf

**Tree Removal Regulations of the County
of Santa Clara**

Santa Clara County Planning Office,
<http://www.sccplanning.org>

Trees in Trouble: Sudden Oak Death

California Oak Mortality Task Force,
2003

**Vertebrate Impacts on Oak Regeneration
in California: A Review of Management
Options**

Robert H. Schmidt, Robert M. Timm,
1991
wildlifedamage.unl.edu/handbook/Chapters/pdf/10gprschmidt.pdf

Wild Turkeys in Oak Woodlands

Greg Giusti, University of California's Integrated Hardwood Range Management Program (IHRMP),
<http://danr.ucop.edu/ihrmp/oak50.htm>

PRINT PUBLICATIONS

A Planner's Guide for Oak Woodlands

University of California's Integrated Hardwood Range Management Program (IHRMP), 1993

Grandmother Oak (children's book)

Rosi Dagit, Roberts Rinehart Publishers, 1996

Guidelines for Managing California's Hardwood Rangelands

University of California Division of Agriculture & Natural Resources, 1996

Investigating the Oak Community (a curriculum for 4th through 8th grades)

Kay Antunez de Mayolo, California Oak Foundation, 2000

Living Among the Oaks: A Management Guide for Landowners

Sharon G. Johnson, University of California's Integrated Hardwood Range Management Program (IHRMP), 1995

Oak Habitat Regeneration on Stanford University Lands

Magic, Inc, 1996

Oak Woodland Invertebrates: The Little Things Count

Richard Little, Ted J. Swiecki, William Tietje, University of California's Integrated Hardwood Range Management Program (IHRMP), 2001

Oaks of California (5th printing)

Bruce M. Pavlick, Pamela C. Muick, Sharon G. Johnson, Margorie Popper, Cachuma Press and the California Oak Foundation, 2002

Preserving Oak Trees: Quick Reference Mitigations for Planning Staff

Santa Clara County Planning Office; UC Cooperative Extension, 1995

Proceedings of the Fifth Symposium on Oak Woodlands: Oaks in California's Changing Landscape (CD-ROM)

University of California's Integrated Hardwood Range Management Program (IHRMP),
<http://danr.ucop.edu/ihrmp/allpubs.html#cdrom>

Regenerating Rangeland Oaks in California

Douglas D. McCreary, University of California Division of Agriculture & Natural Resources, 2001

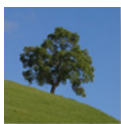
The Life of an Oak

Glenn Keator, Heyday Books and the California Oak Foundation, 1998

Wildlife Among the Oaks: A Management Guide for Landowners

University of California's Integrated Hardwood Range Management Program (IHRMP), 1995





APPENDIX B: OAK WOODLANDS INFORMATION SOURCES – ORGANIZATIONS AND AGENCIES

EDUCATIONAL INSTITUTIONS

California Gap Analysis Project University of California - Santa Barbara

3017 Bren Hall
Santa Barbara, CA 93106-5131
http://www.biogeog.ucsb.edu/projects/gap/gap_home.html

Hastings Natural History Reservation University of California

38601 E Carmel Valley Road
Carmel Valley, CA 93924
(831) 659-2664
<http://www.hastingsreserve.org>

Integrated Hardwood and Range Management Program (IHRMP) University of California

160 Mulford Hall
Berkeley, CA 94720-5438
(510) 643-5428
<http://danr.ucop.edu/ihrmp/>

Oak Conservation Work Group University of California

<http://groups.ucanr.org/oaks/>

Sierra Foothill Research and Extension Center University of California

8279 Scott Forbes Rd
Browns Valley, CA 95918
(530) 639-8800
http://danrrec.ucdavis.edu/sierra_foothill/home_oak.html

Stanford Center for Conservation Biology

385 Serra Mall
Stanford, CA 94305-5020
(650) 723-5924
consbio@bing.stanford.edu
<http://www.stanford.edu/group/CCB/>

Ulistac Restoration Project Santa Clara University

Environmental Studies Institute
Santa Clara University
500 El Camino Real
Santa Clara, CA 9505
(408) 554-5419
<http://www.scu.edu/envs/ulistac/>

NONPROFIT ORGANIZATIONS

Acterra

3921 E Bayshore Road
Palo Alto, CA 94303
(650) 962-9876
<http://www.acterra.org/>

California Cattlemen's Association

1221 H Street
Sacramento, CA 95814-1910
(916) 444-0845
<http://www.calcattlemen.org>

California Farm Bureau Federation

2300 River Plaza Drive
Sacramento, CA 95833
(916) 561-5550
<http://www.cfbf.com>

California Native Plant Society State Office

2707 K St, Suite 1
Sacramento, CA 95816
(916) 447-2677
<http://www.cnps.org>

California Native Plant Society Santa Clara Valley Chapter

3921 E Bayshore Road
Palo Alto, CA 94303
(650) 962-9876
<http://www.cnps-scv.org>

California Oak Foundation

1212 Broadway, Suite 810
Oakland, CA 94612
(510) 763-0282
www.californiaoak.org

California Rangeland Trust

1221 H Street
Sacramento, CA 95814-1910
(916) 444-2096
<http://www.rangelandtrust.org/>

Committee for Green Foothills

3921 E Bayshore Rd
Palo Alto, CA 94303
(650) 968-7243
<http://www.greenfoothills.org>

**Greenbelt Alliance
South Bay Field Office**

1922 The Alameda, Suite 213
San Jose, CA 95126
(408) 983-0856
<http://www.greenbelt.org>

Land Trust for Santa Clara County

66 N. First St, Suite 2
Gilroy, CA 95020
(408) 847-4440

**MAGIC
Oak Restoration Project**

PO Box 15894
Stanford, CA 94309
(650) 323-7333
<http://www.ecomagic.org/>

**Mt Hamilton Range Improvement
Association**

P O Box 86
Mt Hamilton, CA 95140

Peninsula Open Space Trust (POST)

3000 Sand Hill Rd, Bldg 1, Ste 155
Menlo Park, CA 94025
(650) 854-7696
www.openspacetrust.org

**Santa Clara County Cattlemen's
Association**

P O Box 1721
Gilroy, CA 95021

Santa Clara County Farm Bureau

605 Tennant Ave, Suite B
Morgan Hill, CA 95037
(408) 776-1684

Santa Clara Valley Audubon Society

22221 McClellan Rd
Cupertino, CA 95014
(408) 252-3747
scvas@scvas.org
<http://www.scvas.org/>

**Sierra Club
Loma Prieta Chapter**

3921 E Bayshore Rd
Palo Alto, CA 94303
(650) 390-8411
<http://lomaprieta.sierraclub.org/>

**The Nature Conservancy
California Chapter**

201 Mission St, 4th Floor
San Francisco, CA 94105-1832
(415) 777-0487
calweb@tnc.org
[http://nature.org/wherewework/
northamerica/states/california/](http://nature.org/wherewework/northamerica/states/california/)

**GOVERNMENTAL ORGANIZATIONS -
LOCAL**

**Alameda County Resource Conservation
District**

3585 Greenville Road, #2
Livermore, CA 94550
(925) 371-0154
<http://www.baysavers.org>

**Midpeninsula Regional Open Space
District**

330 Distel Circle
Los Altos, CA 94022
(650) 691-1200
mrobsd@openspace.org
<http://www.openspace.org>

**San Francisco Water Department
Land and Resources Management Section**

1657 Rollins Road
Burlingame CA 94010
http://sfwater.org/main.cfm/MC_ID/4

**Santa Clara County Agricultural
Commissioner**

1553 Berger Dr., Bldg 1
San Jose, CA 95113
(408) 918-4600

Santa Clara County Open Space Authority

6830 Via del Oro, Suite 200
San Jose, CA 95119
(408) 224-7476
<http://www.openspaceauthority.org/>

Santa Clara County Parks Department

298 Garden Hill Drive
Los Gatos, CA 95032
(408) 355-2200
parkinfo@mail.prk.co.santa-clara.ca.us
<http://www.parkhere.org>

Santa Clara County Planning Office

70 W Hedding Street, 7th Floor
San Jose, CA 95110
(408) 299-5770
www.sccplanning.org

Santa Clara Valley Water District

5750 Almaden Expressway
San Jose CA 95118
(408) 265-2600
www.valleywater.org

**GOVERNMENTAL ORGANIZATIONS -
STATE**

**California Department of Fish and Game
Habitat Conservation Planning Branch**

1416 9th Street, Rm 1341
Sacramento, CA 95814
(916) 651-8762
<http://www.dfg.ca.gov>

**California Department of Forestry and
Fire Protection
Fire and Resource Assessment Program
(FRAP)**

PO Box 944246
Sacramento, CA 94244-2460
(916) 327-3939
<http://www.frap.cdf.ca.gov>

**California Department of Forestry and
Fire Protection
Resource Management and Forestry**

1300 U Street
Sacramento, CA 95818
[http://www.fire.ca.gov/php/rsrc-mgt.
php](http://www.fire.ca.gov/php/rsrc-mgt.php)

**California Environmental Resources
Evaluation System (CERES)**

900 N St, Suite 250
Sacramento, CA 95814
(916) 654-9990
<http://www.ceres.ca.gov>

California Oak Mortality Task Force

University of California
45 Mulford Hall, #311
Berkeley, CA 94720-3114
<http://www.suddenoakdeath.org/>

**California Oak Woodland Conservation
Program****California Wildlife Conservation Board**

1807 13th Street, Suite 103
Sacramento, CA 95814
(916) 445-8448
[http://www.wcb.ca.gov/OakWoodlands/
oak_woodland_program.html](http://www.wcb.ca.gov/OakWoodlands/oak_woodland_program.html)

California Wildlife Conservation Board

1807 13th Street, Suite 103
Sacramento, CA 95814
(916) 445-8448
<http://www.wcb.ca.gov/>

**University of California Cooperative
Extension****Santa Clara County**

1553 Berger Drive, Bldg. 1
San Jose, CA 95113
(408) 282-3110
<http://cesantaclara.ucdavis.edu/>

**GOVERNMENTAL ORGANIZATIONS -
FEDERAL**

**US Department of Agriculture
Forest Service
Pacific Southwest Research Station**

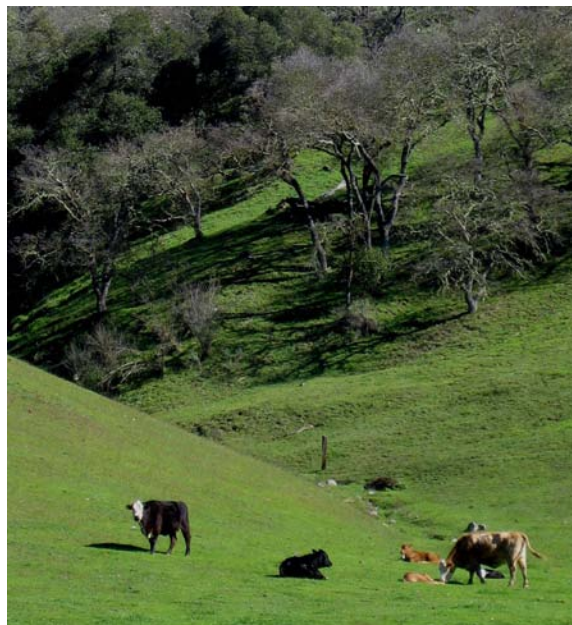
800 Buchanan St
Albany, CA 94710-0011
(510) 559-6300
<http://www.fs.fed.us/psw/>

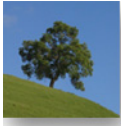
**US Department of Agriculture
Natural Resources Conservation Service
(NRCS)**

744 La Guardia St, Bldg A
Salinas, CA 93905-3354

**US Fish and Wildlife Service
Sacramento Office**

2800 Cottage Way, W-2605
Sacramento, CA 95825
(916) 414-6600
<http://sacramento.fws.gov/>





APPENDIX C: THE CALIFORNIA OAK WOODLANDS CONSERVATION PROGRAM

Origins and Purpose of the Program

In recognition of the important contributions that healthy oak woodlands make to our environment, our quality of life, and our economy, the California State Legislature adopted the Oak Woodlands Conservation Act of 2001.

The Act mandated that the Wildlife Conservation Board (WCB) establish a grant program designed to protect and restore oak woodlands using conservation easements, cost sharing and long-term agreements, technical assistance and public education and outreach.

The Oak Woodlands Conservation Program administered by the WCB provides incentives designed to foster and ensure the conservation of oak woodlands, with an emphasis on sustaining the economic viability of farming and ranching operations.

Since more than 80% of California's oak woodlands are located on private lands, the Program's "mission statement" is to: "Conserve the integrity and diversity of oak woodlands across California's working landscapes through incentives and education."

Eligible Projects

Eighty percent (80%) of the funds available from the Oak Woodlands Conservation Program are earmarked for grants that may be used for the following:

- Purchase of oak woodland conservation easements
- Restoration and enhancement projects
- Long term leases, and
- Cost-sharing incentive payments under long term agreements.

The remaining 20% of the Program's grant funds can be used for projects related to education, outreach, and technical assistance.

Current Funding

The Oak Woodlands Conservation Program began with a total of \$10 million available for grants to eligible entities within cities and counties that adopt oak woodlands conservation plans. Some of these funds have already been allocated to various local projects.

The Program may receive additional funding in the form of mitigation fees authorized under the provisions of Senate Bill 1334, a new law that was recently passed by the Legislature and signed by the Governor, requiring mitigation for oaks losses for certain kinds of land development projects. These mitigation fees would be used for grants for the purchase of oak woodlands conservation easements.

[Note: Although the opportunity to obtain state grants was one of the factors that motivated the preparation of this oak woodlands management plan, it was by no means the only one. As a practical matter, the amount of grant funding available through this program is relatively modest, when allocated over a state as large as California. While it would be highly desirable that some of these funds be allocated to projects in Santa Clara County, the conservation of our oak woodlands should be an important priority for local action regardless of whether state grants are available to assist.]

Eligible Participants

The following are eligible to obtain grants from the Oak Woodlands Conservation Program:

- Private landowners

- Local government entities
- Park and open space districts
- Resource conservation districts, and
- Nonprofit organizations.

Partnerships Encouraged

Participants are encouraged to develop partnerships with interested individuals or organizations that are designed to leverage available technical and financial resources.

Consistency Review and Indication of Support by County

Eligible applicants seeking funding for projects to be undertaken within unincorporated areas of Santa Clara County must obtain certification from the County that their proposed project:

- Is consistent with the County's Oak Woodlands Management Plan, and
- Has the support of the County

State's Minimum Requirements for Plans

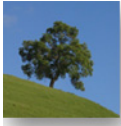
In order for eligible entities to obtain grant funding under the Oak Woodlands Conservation Program, the project must be located within the jurisdiction of a city or county that has adopted an Oak Woodlands Management Plan that meets minimum requirements established by state law.



Minimum Requirements for Oak Woodlands Management Plans

To meet the minimum State requirements for Oak Woodlands Management Plans, the local plan and/or the resolution by which it is adopted must include statements that:

- Describe the status of oak woodlands in their jurisdiction. Such statements shall include a description of all native oak species, estimates of the current and historical distribution of oak woodlands, existing threats, status of natural regeneration and growth trends. To the extent possible, local jurisdictions shall prepare maps displaying the current distribution of oak woodlands.
- Recognize the economic value of oak woodlands to landowners and the community at large. These statements shall encourage and support farming, ranching and grazing operations that are compatible with oak woodland conservation.
- Recognize the natural resource values of oak woodlands including the critical role oak woodlands play relative to the health and function of local watersheds, soil and water retention, wildlife habitat, open space and the reproduction or reduction of fuel loads.
- Recognize that the loss of oak woodlands has serious effects on wildlife habitat, retention of soil and water and that planning decisions for oak woodlands should take into account potential effects of fragmentation of oak woodlands.
- Support and encourage education and outreach efforts designed to demonstrate the economic, social and ecological values associated with oak woodlands.



APPENDIX D: CALIFORNIA OAK WOODLANDS CONSERVATION PROGRAM ELIGIBILITY CRITERIA

The following criteria have been established by state law and/or the California Wildlife Conservation Board (WCB) regarding projects that can be funded through grants from the California Oak Woodlands Conservation Program:

Eligible Easement Acquisition, Restoration or Long-Term Agreement Projects

Pursuant to the requirements of Section 1363, the Act requires that no less than 80 percent of the grant funds allocated by the WCB under the Oak Woodlands Conservation Program be used for the following type of projects:

1. Grants for the purchase of oak woodland easements.

The holder of the conservation easement shall ensure, on an annual basis that the conservation easement conditions have been met for that year.

To facilitate this annual review, a Baseline Condition Report shall be prepared that identifies the biological resources that are present on the property and covered under the conservation easement. The Act requires that priority be given to projects designed to protect oak woodlands in perpetuity with conservation easements.

2. Grants for restoration or enhancement projects.

Project proposals must contain an appropriate management plan that describes the restoration effort and the management practices that will be used to ensure the restoration or enhancement effort achieves the goals of the landowner and the goals of the project.

3. Grant for long-term leases.

Projects are designed to protect oak woodlands for purposes of open space, viewshed, wildlife habitat or alternative grazing opportunities. Such leases must be managed according to a management plan prepared to meet the goals stated in the long-term lease or project agreement.

4. Grants for cost-sharing incentive payments.

Projects designed to achieve conservation objectives and the landowner is willing to enter into long-term agreements. Such agreements shall include management practices that benefit the goals of the landowner and the oak woodlands. The length of the long-term agreement will be dependent upon the nature of the project, the goals of the landowner and benefits to the oak woodlands. Typical long-term agreements could run 15, to 45-years. Cost-share incentive payments could include, but are not necessarily limited to the following:

- Compensation for not cutting trees for firewood.
- Long-term payment to keep the land in open space, managed according to a plan designed to benefit the landowner and the oak woodlands.
- Reimbursement for conservation improvements such as fencing, solar panels, grazing cages to protect young oak saplings, alternative water sources, tree planting and tree maintenance.
- Compensation for alternative grazing practices such as up-front payments to defer grazing on restoration areas. Areas would be managed according to a plan designed to benefit the goals of



the landowner and the restoration of the oak woodlands.

Applicants are encouraged to seek input from the local Fish and Game Biologist or other resource professionals when developing proposals that request funding for conservation easements, development of management plans or long-term agreements.

Criteria for Easement Acquisition, Restoration or Long-Term Agreement Projects

To qualify for funding consideration for a restoration, enhancement, purchase of an oak conservation easement or long-term agreement, projects must meet one or more of the following criteria, must contain an appropriate management plan to assure project goals are maintained and the oak stand must have greater than 10 percent canopy:

- The project is of sufficient size to provide superior wildlife values.
- The project area contains a diverse size-class structure of oak woodlands

and/or a diversity of oak species that will promote the sustainability and perpetuation of oak woodlands.

- The property is adjacent to other protected areas or will contribute toward ease of wildlife movement across ownerships.
- The project contributes toward regional or community goals, provides scenic open-space, protects historic or archeological values, or contains unique geologic features.
- The property is a working landscape. The landowners have implemented or agree to implement stewardship practices that recognize and incorporate the ecological requirements of oak woodlands and associated habitats, thus promoting the economic and resource sustainability of the farming and ranching operation
- The property removes or reduces the threat of habitat conversion from oak woodlands to some other use.
- The project has the potential to serve as a stewardship model for other landowners.

Eligible Public Education, Outreach and Technical Assistance Projects

Pursuant to the requirements of Section 1363, the Act allows for 20 percent of the grant funds allocated by the WCB under the Oak Woodlands Conservation Program be used for the following type of projects:

1. Grants for public education and outreach by local governments, park and open space districts, resource conservation districts and nonprofit organizations.
2. Assistance to local government entities, park and open space districts,



resource conservation districts and nonprofit organization for the development and implementation of oak conservation elements in local general plans.

3. Technical Assistance.

Criteria for Education, Outreach and Technical Assistance Projects

To qualify for funding consideration for a public education, outreach proposal or technical assistance project, the project must meet the following criteria:

- The project shall be designed to identify and communicate the social, economic, agricultural and biological benefits of conserving oak woodlands.
- The project shall be designed and targeted to reach the maximum number of local landowners that could benefit from public education and outreach efforts.
- The project shall be designed and implemented as a collective effort or partnership that, where appropriate, includes local entities such as; landowners, the Resource Conservation District, Fish and Game Biologist, UCCE Farm Advisor, representatives from farming or ranching organizations and the county or city planning department.
- The project shall be designed to promote and encourage oak woodland conservation through voluntary

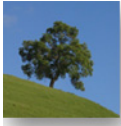
approaches.

- The project shall provide sources of available financial and/or technical information to assist landowners wishing to conserve their oak woodlands.
- The project will identify measurable goals and objectives to evaluate the success of the project. For projects not completed within one year of approval, the design shall include specific interim deliverables or benchmarks and a timeline for completion.
- If requested by the WCB, project sponsors must be willing to make education, outreach and technical assistance information available online so that other project proponents may benefit from the education and outreach effort. Such information should not include private or proprietary information about private landowners or their operations.

Source: The Oak Woodlands Conservation Act of 2001: Program Application and Guidelines. California Wildlife Conservation Board. www.dfg.ca.gov/wcb

Note: Individuals, organizations, or agencies considering applying for grants under this program should check with the Wildlife Conservation Board to see whether these guidelines have been modified since they were published in this plan.





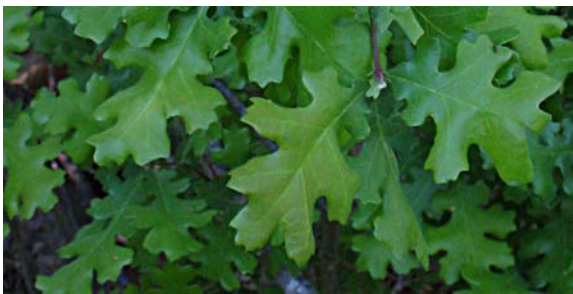
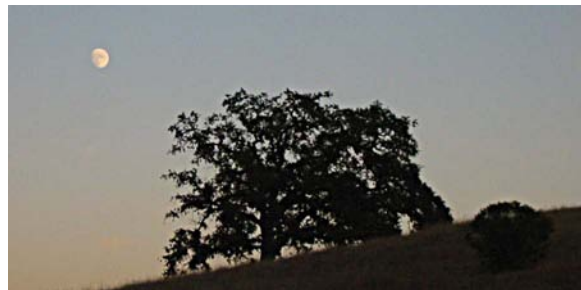
APPENDIX E: LOCAL GOVERNMENT CERTIFICATION OF GRANT APPLICATIONS

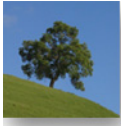
In order for an applicant to submit a grant application to the California Wildlife Conservation Board for funding from the Oak Woodlands Conservation Program, the county or city in which the project proposed for funding will occur must first certify that proposed grant request is consistent with the Oak Woodlands Management Plan of the county or city.

Consequently, eligible participants must consult with the local county or city and obtain a certification that the proposal is consistent with local Oak Woodlands Management Plan.

If the proposed project is in the jurisdiction of more than one county or city, then each county or city must certify that the proposal is consistent with its Oak Woodlands Management Plan.

The Board of Supervisors or city council of the jurisdiction in which the project is proposed must also submit a statement of support for the proposed project, to accompany the grant application.





APPENDIX F: SENATE BILL (SB) 1334

Recent Oak Woodlands Conservation Legislation

Senate Bill (SB) 1334 was enacted into law during the past session of the California Legislature. It requires mitigation for significant oak woodlands losses resulting from certain kinds of development projects. One form of mitigation may be contributions to the California Oak Woodlands Conservation Program to be used for grants for oak woodlands conservation easements.

Legislative History

Introduced by Senator Sheila Kuehl: February 18, 2004

Passed the Assembly: August 23, 2004

Passed the Senate: August 26, 2004

Approved by the Governor: September 24, 2004

Filed with the Secretary of State: September 24, 2004

An act to add Section 21083.4 to the Public Resources Code, relating to oak woodlands conservation.

Legislative Counsel's Digest

SB 1334, Senator Kuehl. Oak woodlands conservation: environmental quality.

- (1) The Oak Woodlands Conservation Act provides funding for the conservation and protection of California's oak woodlands.

The California Environmental Quality Act (CEQA) requires a lead agency to prepare, or cause to be prepared, and certify the completion of, an environmental impact report on a discretionary project that it proposes to carry out or approve that may have a significant effect on the environment, as defined, or to adopt a negative declaration if it finds that the project will not have that effect. CEQA also requires a lead agency to prepare a mitigated negative declaration for a project that may have a significant effect on the environment if revisions in the project would avoid or mitigate that effect and there is no substantial evidence that the project, as revised, would have a significant effect on the environment. CEQA provides some exemptions from its requirements for specified projects.

This bill would require a county, in determining whether CEQA requires an environmental impact report, negative declaration, or mitigated negative declaration, to determine whether a project in its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment, and would require the county, if it determines there may be a significant effect to oak woodlands, to require one or more of specified mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. The bill would exempt specified activities from its requirements. By imposing new duties on local governments with respect to oak woodlands mitigation, the bill would impose a state-mandated local program.

- (2) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 21083.4 is added to the Public Resources Code, to read:

21083.4.

- (a) For purposes of this section, “oak” means a native tree species in the genus *Quercus*, not designated as Group A or Group B commercial species pursuant to regulations adopted by the State Board of Forestry and Fire Protection pursuant to Section 4526, and that is 5 inches or more in diameter at breast height.
- (b) As part of the determination made pursuant to Section 21080.1, a county shall determine whether a project within its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment. If a county determines that there may be a significant effect to oak woodlands, the county shall require one or more of the following oak woodlands mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands:
 - (1) Conserve oak woodlands, through the use of conservation easements.
 - (2)
 - (A) Plant an appropriate number of trees, including maintaining plantings and replacing dead or diseased trees.
 - (B) The requirement to maintain trees pursuant to this paragraph terminates seven years after the trees are planted.
 - (C) Mitigation pursuant to this paragraph shall not fulfill more than one-half of the mitigation requirement for the project.
 - (D) The requirements imposed pursuant to this paragraph also may be used to restore former oak woodlands.
 - (3) Contribute funds to the Oak Woodlands Conservation Fund, as established under subdivision (a) of Section 1363 of the Fish and Game Code, for the purpose of purchasing oak woodlands conservation easements, as specified under paragraph (1) of subdivision (d) of that section and the guidelines and criteria of the Wildlife Conservation Board.

A project applicant that contributes funds under this paragraph shall not receive a grant from the Oak Woodlands Conservation Fund as part of the mitigation for the project.
 - (4) Other mitigation measures developed by the county.
- (c) Notwithstanding subdivision (d) of Section 1363 of the Fish and Game Code, a county may use a grant awarded pursuant to the Oak Woodlands Conservation Act (Article 3.5 (commencing with Section 1360) of Chapter 4 of Division 2 of the Fish and Game Code) to prepare an oak conservation element for a general plan, an oak protection ordinance, or an oak woodlands management plan, or amendments thereto, that meets the requirements of this section.

(d) The following are exempt from this section:

- (1) Projects undertaken pursuant to an approved Natural Community Conservation Plan or approved subarea plan within an approved Natural Community Conservation Plan that includes oaks as a covered species or that conserves oak habitat through natural community conservation preserve designation and implementation and mitigation measures that are consistent with this section.
- (2) Affordable housing projects for lower income households, as defined pursuant to Section 50079.5 of the Health and Safety Code, that are located within an urbanized area, or within a sphere of influence as defined pursuant to Section 56076 of the Government Code.
- (3) Conversion of oak woodlands on agricultural land that includes land that is used to produce or process plant and animal products for commercial purposes.
- (4) Projects undertaken pursuant to Section 21080.5 of the Public Resources Code.

(e)

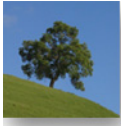
- (1) A lead agency that adopts, and a project that incorporates, one or more of the measures specified in this section to mitigate the significant effects to oaks and oak woodlands shall be deemed to be in compliance with this division only as it applies to effects on oaks and oak woodlands.
- (2) The Legislature does not intend this section to modify requirements of this division, other than with regard to effects on oaks and oak woodlands.

(f) This section does not preclude the application of Section 21081 to a project.

(g) This section, and the regulations adopted pursuant to this section, shall not be construed as a limitation on the power of a public agency to comply with this division or any other provision of law.

SEC. 2. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because a local agency or school district has the authority to levy service charges, fees, or assessments sufficient to pay for the program or level of service mandated by this act, within the meaning of Section 17556 of the Government Code.





APPENDIX G: PLAN PREPARATION PARTICIPANTS

The following individuals participated in the preparation and/or review of this oak woodlands management plan. Organization and agency names are included for identification purposes only and do not constitute official endorsements by their organizations or agencies.

Sheila Barry

UC Cooperative Extension

Bill Bousman

Santa Clara Valley Audubon Society

Theresa Bradshaw

Volunteer with The Nature
Conservancy

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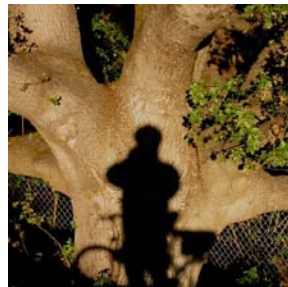
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