

OPEN SPACE ELEMENT

1.0 Introduction

Open space, including both land and water, is a limited and valuable resource. The California Legislature has declared the importance of preserving open space for the enjoyment of scenic beauty, for recreation, and for the use of natural resources.

This element addresses open space from two perspectives:

- The relationship of open space to natural resources preservation, including the protection of rare and endangered species and ecologically sensitive areas; and
- The role of open space in providing recreational land and cultural opportunities.

The use of open space for the managed production of natural resources, including forestry, mining and agriculture is discussed in the Conservation Element. The regulation of open space in the interest of public health and safety is addressed in the Conservation and Safety Elements. The above four perspectives of open space discussed in this and the Conservation and Safety Elements are not mutually exclusive, and are often compatible. For example, some wildlife habitat may be capable of supporting properly managed timber harvesting or grazing. Similarly, some watershed areas may also provide recreational opportunities.

1.1 Legal Authority

The legal requirements for the Open Space Element are included in Section 65560 et. seq. and 65302(e) of the California Government Code. The Open Space Element is a plan for the comprehensive and long-range preservation and conservation of "open space land". Open space land is defined in the statutes as any area of land or water which is essentially unimproved and devoted to an open space use; and which is designated on a local, regional, or State open space plan as open space for the preservation of natural resources, managed production of resources, outdoor recreation, or for public health and safety.

In adopting the requirement that all jurisdictions must prepare an Open Space element, the Legislature found that the preservation of open space land is necessary not only for the maintenance of the economy of the State, but also for the continued availability of land for the production of food and fiber, for the enjoyment of scenic beauty, for recreation, and for the use of natural resources. The Legislature further found that discouraging premature and unnecessary conversion of open space to urban uses is in the public interest because it discourages non-contiguous development patterns which tend to increase the costs of community services to community residents.

1.2 Relationship to Other General Plan Elements

Together with the closely related Conservation Element, the Open Space Element sets forth Calaveras County's policies concerning natural resources. Both elements are integrated with the Plan's policies regarding Land Use, Safety and Noise.

2.0 Ecological Resource Areas

With its varied elevations from valleys to foothills to mountain ranges, Calaveras County contains many different habitats which support a rich diversity of plant and animal life.

The locations of various types of vegetation are shown on Vegetation Data map, Page V-3. The biological communities are based on the California Department of Fish and Game's Wildlife Habitat Relationships classifications. A detailed description of the communities is included in the Open Space Appendix.

The locations of key wildlife habitats and other significant wildlife areas are shown on Key Wildlife Habitats map, Page V-6 and Significant Wildlife Habitats map, Page V-7, respectively.

2.1 Rare Natural Plant Communities

The California Department of Fish and Game maintains a list of plant communities within the state that are of special concern. This includes communities that have historically had a limited distribution as well as communities that have become limited because of human activities. There are two such Natural Plant Communities present in Calaveras County, the Big Tree Forest and the Ione Chaparral.

Big Tree Forest

The Big Tree Forest consists of large stands of giant sequoias that are present in isolated groves along the west slope of the Sierra Nevada. These groves are the remnants of forests that were once prominent throughout the United States and are now limited to this scattered distribution pattern.

There is one occurrence of big tree forest in Calaveras County, the North Calaveras Grove in the Calaveras Big Trees State Park. This is shown on Vegetation Data map, Page V-3.

Ione Chaparral

This is a unique plant community of the Sierra foothills found in a few isolated patches north and south of the small town of Ione in Amador County. Ione manzanita is one of the rare plants associated with this dwarf-chaparral type brush community. The sterile soil is also known as Ione, and consists of ancient acidic clay. Most chaparral shrubs cannot tolerate the harsh conditions characteristic of this soil, and those that do are sparsely distributed and stunted. The dwarf Ione chaparral community is distinctive alongside the taller, more typical chaparral found on adjacent soils.

There are three occurrences of Ione chaparral in Calaveras County near Mokelumne Hill, along the north fork of Murray Creek, and north of Valley Springs Peak. These locations are shown on Vegetation Data map, Page V-3.

Vegetation Data map

2.2 Significant Vegetative Habitat

There are several lists generated by different government agencies and groups that indicate various degrees of "special status" for plant species. These include the Federal Endangered and Threatened List; the California Endangered and Threatened List; the California Native Plant Society (CNPS) list; and the U.S. Forest Service Sensitive Species list.

The special status species listed in Table V-1 were identified through the California Department of Fish and Game's *Natural Diversity Database* (1993), the *Land & Resource Management Plan: Stanislaus National Forest* (1991), the CNPS inventory, and discussions with rangers, botanists, and other local experts.

TABLE V-1 SPECIAL STATUS PLANT SPECIES Calaveras County, 1993		
Common Name	Scientific Name	Status
Ahart's dwarf rush	<i>Juncus leiospermus</i> var <i>aharti</i>	FC1, CNP-1B
Bacigalupi's perideridia	<i>Perideridia Bacigalupii</i>	CNP-4
Bisbee Peak rush-rose	<i>Helianthemum suffrutescens</i>	FC2, CNP-3
Davy's sedge	<i>Carex davyi</i>	CNP-4
Delta button celery	<i>Eryngium racemosum</i>	FC2, SE, CNP-1B
Ewan's larkspur	<i>Delphinium hansenii</i> ssp <i>ewanianum</i>	CNP-4
Foothill jepsonia	<i>Jepsonia heterandra</i>	CNP-4
Fresno ceanothus	<i>Ceanothus fresnensis</i>	CNP-4
Henderson's bent grass	<i>Agrostis hendersonii</i>	FC2, CNP-3
Hoary navarretia	<i>Navarretia eriocephala</i>	CNP-4
Hoover's calycadenia	<i>Calycadenia hooveri</i>	FC2, CNP-1B
Humboldt lily	<i>Lilium humboldtii</i> ssp <i>humboldtii</i>	CNP-4
Ione manzanita	<i>Arctostaphylos myrtifolia</i>	FC1, CNP-1B
Mariposa cryptantha	<i>Cryptantha mariposae</i>	CNP-4
Pansy monkeyflower	<i>Mimulus pulchellus</i>	CNP-4
Parry's horkelia	<i>Horkelia parryi</i>	CNP-1B
Round woolly marbles	<i>Psilocarphus tenellus</i> var <i>globiferus</i>	CNP-4
Sanborn's onion	<i>Allium sanbornii</i> var <i>sanbornii</i>	CNP-4
Sierra bolandra	<i>Bolandra californica</i>	CNP-4
Sierra clarkia	<i>Clarkia virgata</i>	CNP-4
Sierra mondarella	<i>Mondarella candicans</i>	CNP-4

Small-flowered monkeyflower	Mimulus inconspicuus	CNP-4
Stebbins' lomatium	Lomatium Stebbinsii	FC2, CNP1-B
Three-bracted onion	Allium tribracteatum	CNP-1B
Tuolumne button celery	Eryngium pinnatisectum	CNP-4
Whipple's monkeyflower	Mimulus whipplei	CNP-1A

Key

- FC1 Federal candidate for listing with sufficient biological data
- FC2 Federal candidate for listing but biological data lacking
- SE State-endangered species
- CNP-1A California Native Plant Society, plants presumed extinct in California
- CNP-1B California Native Plant Society, plants eligible for state listing
- CNP-3 California Native Plant Society, plants about which more information is needed for eligibility
- CNP-4 California Native Plant Society, plants of limited distribution

Sources: California Department of Fish and Game, *Natural Diversity Database*, July, 1993.
California Native Plant Society, *Rare Plant Inventory*, July, 1993.
U.S. Forest Service, *Land & Resource Management Plan: Stanislaus National Forest*, 1991.

2.3 Significant Wildlife Habitat

Several different governmental agencies and other groups create and maintain lists of wildlife species that indicate varying degrees of "special status." These lists include the Federal Endangered and Threatened List; the California Endangered and Threatened List; the California Department of Fish and Game Species of Special Concern; the U.S. Forest Service Sensitive Species list; and the National Audubon Society list.

The special status species for Calaveras County that are listed in Table V-2 were identified through the Natural Diversity Database (1993), the *Land & Resource Management Plan: Stanislaus National Forest* (1991), discussions with rangers and other local experts. Some of the species were identified by the U.S. Forest Service as being "forestwide indicator species" ("FIS" in the "Class" column of Table V-2) in the 11 percent of the county within the National Forest; and others as being "special habitat indicator species" ("SI" in the "Class" column of Table V-2).

Bald Eagle

While there are no known nesting sites in the county for the bald eagle, a federal and state-listed endangered species, the raptors do use some of the reservoirs as over-wintering sites. Small populations of the southern bald eagle winter around Salt Spring Valley Reservoir, New Hogan Reservoir, and Pardee Reservoir, all in the western portion of the county. They stay in the area from October to March, ranging out to adjacent ponds or streams looking for prey. See Significant Wildlife Habitats map, Page V-7.

Key Wildlife Habitats map

Significant Wildlife Habitats map

Golden Eagles

Golden eagles are found throughout the county. Nesting sites have been identified in two areas: at the Tulloch Lake reservoir in the extreme southern part of the county, and southeast of Tamarack near the Alpine/Tuolumne/Calaveras borders. Golden eagles and their nest sites are protected by federal legislation. See Significant Wildlife Habitats map, Page V-7.

Spotted Owl

The spotted owl found in Calaveras County is the California spotted owl (*Strix occidentalis occidentalis*), a subspecies of the federally listed threatened species the northern spotted owl (*Strix occidentalis caurina*). The habitat of the northern spotted owl is old-growth and mature forests in the Pacific Northwest, including Washington, Oregon, and northwestern California.

The California spotted owl, listed by the U.S. Forest Service as a sensitive species, is sometimes called the southern spotted owl. It inhabits a 400-mile long stretch of the Sierra Nevada, and all major mountain chains in Southern California. Fewer than 2,000 pairs are believed to exist.

In the Sierra Nevada province, the population is contiguous and fairly evenly distributed within the range. According to a 1992 report by the Forest Service on this subspecies, five pairs were sighted nesting in private lands in Calaveras County in 1970, one pair was confirmed in 1987, and none were sighted in 1991. On public land, two pairs have been found in Calaveras Big

TABLE V-2 SPECIAL STATUS AND OTHER ANIMAL SPECIES Calaveras County, 1993			
Common Name	Scientific Name	Status	Class
Bald eagle	<i>Haliaeetus leucocephalus</i>	FE	SI
Bristle snail	<i>Monadenia mormonum buttoni</i>	FC2	
California spotted owl	<i>Strix occidentalis occidentalis</i>	FSS	FIS
California tiger salamander	<i>Ambystoma californiense</i>	FC2, CSC	
Gradys Cave amphipod	<i>Stygobromus gradyi</i>	FC2	
Great grey owl	<i>Strix nebulosa</i>	SE, FSS	SI
Lahontan cutthroat trout	<i>Oncorhynchus clarki henshawi</i>	FT	SI
Melones Cave harvestman	<i>Banksula melones</i>	NE	
Northern goshawk	<i>Accipiter gentilis</i>	FC2, CSC, FSS	FIS
Pacific fisher	<i>Martes pennanti pacifica</i>	FC2, CSC, FSS	FIS
Pale big eared bat	<i>Plecotus townsendii pallescens</i>	NE, CSC	
Peregrine falcon	<i>Falco peregrinus</i>	FE	SI
Pileated woodpecker	<i>Dryocopus pileatus</i>	-	FIS

Pine marten	<i>Martes americana</i>	FSS	FIS
Riparian bird species e.g., Wilson's warbler, Yellow warbler		-	FIS
Tight coin	<i>Ammonitella yatesi</i>	FC2	
Tricolored blackbird	<i>Agelaius tricolor</i>	FC2, CSC	
Western grey squirrel	<i>Sciurus griseus</i>	-	FIS
Willow flycatcher	<i>Empidonax traillii</i>	FSS	FIS

Key

- CSC California Department of Fish and Game, Special Concern species
- FC2 Federal candidate for listing but biological data lacking
- FE Federally-listed endangered species
- FIS Forestwide indicator species
- FSS Forest Service sensitive species
- FT Federally-listed threatened species
- NE Not established as candidate species but listed in California Natural Diversity Database
- SE State-listed endangered species
- SI Special Habitat Indicator Species

Sources: California Department of Fish and Game, *Natural Diversity Database*, July, 1993.
U.S. Forest Service, *Land & Resource Management Plan: Stanislaus National Forest*, 1991.

Trees State Park. As of March 1, 1993, logging has been restricted for a two-year period in the federal forests in the Sierra Nevada as a means of extending protection to the California spotted owl.

Habitat requirements of spotted owls are quite controversial, especially with respect to private land holdings and logging practices in national forests. Like their northern cousin, the southern spotted owl prefers densely forested areas, often in old-growth conifer forests. However, research suggests that the California spotted owl uses a broader array of habitats than used by the northern spotted owl. Within the Stanislaus National Forest, it nests at elevations from 3,000 feet in pin-oak stands to 7,500 feet in red-fir stands. The approximate extent of potential spotted owl habitat areas is shown on Key Wildlife Habitats map, Page V-6

Migrating Deer Herds

Generally, there are two categories of deer that inhabit Calaveras County: those that are year-round residents and those that are part of the migratory group known as the Rail Road Flat deer herd. The resident deer have wide-spread habitats and are fairly adaptable to human uses of the land. The deer herd is more sensitive to human encroachment, and is especially vulnerable to loss of habitat and disruption of migration routes through building and development efforts.

The Rail Road Flat herd migrates from its winter range in Calaveras County to summer range in Alpine County. The herd derives its name from the community of the same name situated in the middle of the winter range, and is predominantly made up of California mule deer (*odocoileus hemionus californicus*). In the winter range, the herd may mingle with the resident black-tailed deer; in the summer range, with a few Rocky Mountain mule deer from the Carson River herd.

There are distinct activities that take place in certain areas during the annual migration. The herd's winter range land, migration routes, fall and spring holding areas, and fawning areas are all

within Calaveras County (see Significant Wildlife Habitats map, Page V-7). Most of these habitats with the exception of the winter range are located in the higher elevations of Calaveras County on either U.S. Forest Service lands or privately held timber producing land. Summer range is outside of the county in the higher elevations of Alpine and Tuolumne counties.

The herd can adapt to most habitat types, but optimum habitat has food and cover types arranged in close proximity. The winter range is considered to be a key factor in the health and size of the migrating deer herd.

The Rail Road Flat herd has a total range of 520 square miles. According to data in the *Land & Resource Management Plan: Stanislaus National Forest* (1991), 97 percent of the herd's summer range is located in the Stanislaus National Forest, with the balance on private land. Its intermediate range is evenly divided between national forest and private lands. Twenty percent of the critical winter range is in the forest, with 80 percent on private lands. Slightly different figures occur in earlier reports on the herd (Wernette, 1981).

A detailed study by Department of Fish and Game in 1973, estimated the size of the herd at that time as being between 6,000 and 9,000, with the population trend in decline (as has been the case since at least the 1960s). The study found both the condition of the herd and of their range to be poor. Reasons given for the poor condition and downward population trends were: poor quality of summer range, overuse of available forage, plant succession and fire suppression, habitat deterioration, human encroachment, and drought. These issues continue to be of concern today. Current Department of Fish and Game policy regarding deer herds is to restore and maintain critical habitats.

Because of the population decline in the Rail Road Flat deer herd, only grazing and timber harvesting are considered compatible land uses. In certain cases, these uses can actually increase the quality of the habitats if overgrazing or removal of large stands of forest are minimized.

The deer herd's wintering range is located in the central portion of the county near the towns of West Point, Rail Road Flat, and Sheep Ranch. If the wintering range is preserved, the growth of these communities to the east is limited. As a compromise, the county has defined the Rail Road Flat deer wintering range as protected and unprotected areas. Unprotected areas of the habitat are located along Highway 4 and a wide zone east of the road between Sheep Ranch and West Point. (see Significant Wildlife Habitats map, Page V-7)

Turkeys

Turkeys (*meleagris gallopavo*) are a non-native species in California, but were introduced to the state and to parts of the western United States in attempts to establish viable sport hunting populations. They were introduced into Calaveras County for this reason in the mid to late 1960s. Small flocks exist over much of the county, but the major population center is in the Bear and Hogback Mountains, west of San Andreas, in the southwestern region of the county. As of 1980, California Department of Fish and Game estimated some three to four flocks of 20 to 30 birds inhabiting this area. As an introduced game bird, turkeys have a lower value as a natural resource than indigenous species.

Extensive land development is considered to be the major activity likely to significantly alter the turkey population or abundance in their range. Human habitation and intensive agriculture also have potentially negative impacts on turkey populations. Grazing and timber harvesting are generally compatible land uses in the turkey range.

Fish

Calaveras County is traversed by three major rivers and numerous streams which provide abundant natural habitat for fish. In addition, artificial lake fishery habitat has been added in the form of 10 reservoirs (see Water Resources section). Known fish species identified by the U.S. Forest Service and others include rainbow trout, golden trout, brook trout, brown trout, and several warm water species.

Winter run Chinook salmon (*Oncorhynchus tshawytscha*), a federally listed threatened and state-listed endangered species, are known to utilize the Calaveras River below New Hogan Reservoir. The population is small and somewhat sporadic, only penetrating this reach of the river during favorable stream conditions.

GENERAL PLAN RECOMMENDATIONS

Goal V-1: Preserve and enhance the County's significant wildlife and botanical habitats.

Policy V-1A: Review proposed development for potential impacts to significant wildlife and botanical habitats.

per Implementation Measure V-1A-1: Allow a maximum density of one dwelling unit 40 acres on lands within the following significant protected wildlife and botanical habitats outside of Community Centers, Residential Centers, and Community or Special Plan Areas:

Railroad Flat Deer Protected Areas
Bald Eagle Wintering Area
Golden Eagle Nesting Area
Big Trees State Park
UOP Research Area

Implementation Measure V-1A-2: When reviewing discretionary permits, require a vegetative and/or wildlife assessment and appropriate mitigation measures for those areas identified as potentially containing sensitive species as identified in Tables V-1 and V-2.

Implementation Measure V-1A-3: Utilize the Environmental Protection zone of the County Zoning Code to regulate development standards within significant protected wildlife and botanical habitats.

Implementation Measure V-1A-4: Actively solicit assistance from federal and state agencies and non-profit organizations with expertise in habitat management to work cooperatively with public and private property owners located in wildlife and botanical habitats toward the appropriate management of their lands.

Implementation Measure V-1A-5 : Encourage the establishment of protective easements in wildlife and botanical habitats under the Open Space Easement Act of 1974 (Government Code section 51070 *et seq.*).

Goal V-2 : Protect streams, rivers and lakes from excessive sedimentation due to development and grading.

Policy V-2A: Review proposed development projects for potential effects on nearby and adjacent streams, rivers and lakes.

Implementation Measure V-2A-1: Require appropriate grading and drainage plans for proposed development projects.

Implementation Measure V-2A-2: Require erosion control measures for all grading and earth moving activities which may contribute to significant sedimentation.

Implementation Measure V-2A-3 : Develop a County grading ordinance.

Implementation Measure V-2A-4: Investigate utilizing the services of the Soil Conservation Service.

Goal V-3 : Protect and preserve riparian habitat along streams and rivers in the County.

Policy V-3A : Review proposed development projects for potential impacts to riparian areas.

Implementation Measure V-3A-1: Require that any 100-year flood plains be shown on all plot plans and subdivision maps for areas subject to inundation.

Implementation Measure V-3A-2 : Amend the County Zoning and Subdivision Codes to protect riparian habitat.

3.0 Cultural, Historic and Scenic Resources

3.1 Areas of Archaeological Importance

Archaeology is the scientific study of the remains of human life and culture in past ages. Calaveras County is categorized into three levels of archaeological sensitivity, as shown on the Archaeological Sensitivity map, Page V-13. The Map serves as a guide in determining which future subdivisions and other development projects may impact cultural resources. Sensitivity is based on the probability of finding significant archaeological sites.

The sources of archaeological sites and artifacts in Calaveras County are Miwok and Washo settlements. The Washo utilized the eastern, high elevation pine forests of the County in late summer, primarily for hunting. The Miwok utilized the lower elevations of the County. Their activities were strongly oriented toward rivers and streams.

Archaeological Sensitivity map

- **High Sensitivity Zones** are the courses of streams and major tributaries. These areas probably contain many sites, including large villages with evidence of long-term occupation.
- **Moderate Sensitivity Zones** are tributary streams, springs and small valleys. These areas were probably used intermittently, making the discovery of major population centers unlikely.
- **Low Sensitivity Zones** cover the remaining areas of the County. Although some sites probably exist in these areas, the discovery of significant sites is unlikely.

GENERAL PLAN RECOMMENDATIONS

Goal V-4: Preserve or allow recovery of the County's significant archeological sites and artifacts.

Policy V-4A: Review proposed development projects to be located within areas identified as high and moderate potential archaeological sensitivity for potential impacts to archaeological resources.

Implementation Measure V-4A-1: In areas without prior archaeological study or subsurface disturbance, require that an "archaeological resource assessment" be conducted prior to grading or any surface disturbance located within high and moderate areas of archeological sensitivity.

Implementation Measure V-4A-2: Condition development projects to preserve or allow recovery of any significant on-site archaeological resources in the event archaeological resources are encountered during development or construction, utilizing the guidelines as set forth in Public Resources Code Section 21083.2.

3.2 Significant Cultural and Historical Areas

Much of Calaveras County was initially developed during the Gold Rush era. Many representative buildings are still standing and in use at the present time. Preservation of the character of the Mother Lode historic structures has received much support and activity in recent years. Historic preservation is considered to be a major priority in many of the County's communities. The historic character of many communities attract visitors from outside the area, providing a strong base for the tourist/visitor economy.

GENERAL PLAN RECOMMENDATIONS

Goal V-5: Preserve the existing historic character of the County.

Policy V-5A: Encourage property owners to preserve and maintain structures of historic character.

Implementation Measure V-5A-1: Promote the use of the State of California Historic Building Code to protect historic sites in the County.

Implementation Measure V-5A-2: Encourage owners of eligible historic properties to apply for State and federal registration of these sites and to participate in tax incentive programs for historic restoration.

Policy V-5B: Encourage coordination with federal, State, and local organizations, to preserve, restore, and enhance unique historic sites.

Implementation Measure V-5B-1: Identify, assist, and support interested persons or groups of the availability of federal, State, or local funding programs for historic preservation.

Implementation Measure V-5B-2: Consider, when requested by local groups, the formation of historic districts.

3.3 Areas of Outstanding Scenic Value

Calaveras County is considered by many to be a desirable place to live for its scenic qualities. There are significant topographic variations and several resources which contribute to this scenic quality. The primary attributes include the reservoirs, rivers and streams, rolling hills with oak habitat, ridgelines, and the forests. Views and access to these natural features help to reinforce the rural character of the County.

Since most of the County consists of these features, specific areas are not identified on a map. These scenic resources are aesthetic opportunities which should be considered when reviewing new development.

GENERAL PLAN RECOMMENDATIONS

Goal V-6: To preserve and protect the scenic qualities of the County.

Policy V-6A: Proposed new development shall consider the scenic qualities of the natural resources in the design of the project.

Implementation Measure V-6A-1: New development shall be encouraged to avoid extreme topographic modification, and may be required to restore natural contours and vegetation of the land after grading or other land disturbances.

Implementation Measure V-6A-2: Cluster development with preservation of open space of scenic quality shall be encouraged.

Implementation Measure V-6A-3: New development shall be encouraged to be designed in a manner which is sensitive to available natural resources.

4.0 Recreational Resources

The recreational resources of Calaveras County provide substantial benefit to residents and visitors, and to the economy of the area.

Major Recreation Areas map

4.1 Parks and Reserves

There are many publicly owned natural resource areas located within the County, which are discussed below. In addition, the University of the Pacific (located in Stockton) owns a 40-acre botanical research area in the County.

The University of the Pacific research area is located northeast of Mountain Ranch. It consists of foothill woodland and yellow pine forest communities, and includes a permanent creek. It is managed as a research natural area by the university for the retention and restoration of the natural plant communities.

4.2 Federal Lands with Recreation Opportunities

As shown on Table V-3, approximately 20 percent of the land area of Calaveras County is administered by either the U. S. Forest Service or the U. S. Department of Interior's Bureau of Land Management (BLM).

The Stanislaus National Forest, managed by the U. S. Forest Service, serves multiple purposes and is increasingly used and managed for recreation. Stanislaus National Forest (over one-million acres) includes parts of Tuolumne, Alpine and Calaveras Counties. About 11 percent of the total acreage of Calaveras County the northeastern portion lies within the forest. Portions of the Mokelumne Wilderness and the Carson-Iceberg Wilderness (which are part of the Stanislaus National Forest), lie within Calaveras County. State Highway 4 provides access to the Ebbetts Pass and Sierra Crest for recreational activities. The National Forest not only serves as a recreational resource for County residents, but also attracts visitors from all of California as well as other states.

Recreation Area	Acreage	Percent of Total County Acreage
Stanislaus National Forest	85,000	13%
Bureau of Land Management (BLM)	39,000	6%
State Parks	5,000	1%
Reservoirs	35,000	5%
Total	165000	25%

The Mokelumne Wilderness is located mostly in Amador and Alpine counties with a small section found in the northernmost corner of Calaveras County above Salt Springs Reservoir along the North Fork of the Mokelumne River.

BLM lands also serve multiple purposes, including recreation. BLM lands in the County are essentially undeveloped with few if any recreation facilities.

4.3 State Recreation Areas

In 1852, giant sequoia groves were discovered and visitors came to Calaveras County to view the majestic trees. Today, Calaveras Big Trees State Park is a major attraction to visitors. The Park contains 5,436 acres which include two sequoia groves and numerous recreation facilities.

Calaveras Big Trees State Park is bisected by the North Fork Stanislaus River, and straddles the Calaveras-Tuolumne County line, with about 40 percent of the 6,000 acres located in Calaveras County. The two most significant natural features are the North Grove (located in Calaveras County) and South Groves (located in Tuolumne County) of Sierra Redwood (*sequoiadendron giganteum*), commonly known as the giant sequoia. The tallest tree in the park is over 300 feet and some of the older trees are an estimated 3,000 years old.

Frogtown is the site of the annual Calaveras County Fair and Jumping Frog Jubilee, and is owned by the State of California. The fairgrounds are located on a 68-acre site, approximately one mile south of Angels Camp. In addition to the annual Frog Jump, numerous public activities are held at the site throughout the year.

4.4 Reservoir Recreation Areas

Water-oriented recreational opportunities are provided by Calaveras County's six major reservoirs: Pardee, Camanche, New Hogan, Lake Tulloch, New Melones and Salt Springs.

- Pardee Reservoir is owned by the East Bay Municipal Utility District. Because it is a source of domestic drinking water, recreational use of the area is restricted to minimal activities such as fishing, camping and picnicking.
- Camanche Reservoir is also owned by the East Bay Municipal Utility District. Swimming and boating are permitted at the Reservoir, and the area offers a variety of overnight accommodations and recreational activities.
- New Hogan Reservoir is owned and managed by the United States Bureau of Reclamation. Although less developed than Camanche in terms of overnight facilities and services, New Hogan receives substantial use, including boating, swimming, fishing, picnicking and camping.
- Lake Tulloch is managed by the Oakdale and South San Joaquin Irrigation Districts for irrigation and domestic water purposes. The Lake is also used for recreation, with boating and swimming permitted.
- New Melones Reservoir is owned and managed by the Bureau of Reclamation. New Melones receives substantial recreational use, including boating, swimming, fishing, and camping. the recreational facilities agreed to be constructed by the Bureau have never been completed.
- Salt Springs Reservoir is owned by Pacific Gas and Electric for the purpose of hydroelectric power. Fishing, boating, and swimming are permitted.

Wild and Scenic Rivers

Currently, none of Calaveras County's rivers are designated under either the state or federal Wild and Scenic River programs. However, there has been and continues to be interest and support for gaining official designation for portions of the rivers.

Unsuccessful attempts were made in 1974 and 1976 to place stretches of the Stanislaus River under the protection of the California Wild and Scenic Rivers System; in 1979, unsuccessful legislation was proposed to designate segments of the Stanislaus as part of the National Wild and Scenic River System. When New Melones Lake was approved for operation at full capacity and filled in 1982, the most popular 9½ mile white-water stretch of the Stanislaus was inundated. During continued years of drought the reservoir lowers and, as a result, this white-water stretch is accessible again.

As part of the *Land and Resource Management Plan: Stanislaus National Forest* (1991), a Wild and Scenic River Study of the forest's rivers was conducted. The study concluded that the North Fork of the Mokelumne, and the North and Middle Forks of the Stanislaus are eligible for the classification of "wild;" part of the Middle Fork of the Stanislaus as "scenic;" and portions of the North Fork of the Stanislaus as "recreational." Congress makes the final determination on Wild and Scenic River designations. At this time, the Forest Service manages the areas as if they were officially designated, even though Congress has yet to act upon the study's recommendation. If and when the designations are made official, the National Forest Service will prepare detailed management plans for those sections of the rivers affected.

Approximately 30 acres near the Highway 49 bridge over the Mokelumne River, a popular white-water stretch, is being purchased by the State for a white-water recreational area.

The Stanislaus and Mokelumne Rivers attract local and regional users for white water rafting and kayaking. The rivers are used both by organized commercial tours and by individuals on rafts, innertubes and canoes. Other creeks and tributaries in the County are used in similar fashion.

Caves

Of all counties in California, Calaveras has the most outstanding limestone caves. The County's three major caves are Mercer Caverns near Murphys, Moaning Cave near Vallecito, and California Caverns at Cave City near Mountain Ranch. Mercer Caverns opened to the public in 1887. It contains some of the rarest calcite formations. Moaning Cave has a large chamber accessible from a 100-foot spiral staircase. It also contained the oldest human remains ever found in the Northern Hemisphere. California Caverns, the oldest commercial cave in Calaveras County, has numerous chambers and passageways and lakes up to 200 feet deep.

Trails

Trail enthusiasts in Calaveras County formed the Mokelumne River Trail Council in 1989 to secure a permanent, public trail access along the North Fork of the Mokelumne River. Later, the concept was expanded to a multi-use trail connecting the Pacific Ocean at the San Francisco Bay to the Sierra Nevada Range just south of Lake Tahoe. The project is named the Mokelumne Coast to Crest Trail. The conceptual route for the trail generally follows the Mokelumne Aqueduct and the North Fork of the Mokelumne River in Calaveras County.

4.5 Local Recreation Areas

Given its predominantly natural character, much of the County can be considered a recreational resource for residents. Two areas particularly favored for local recreation use are waterways and local parks. Typically found near or within townsites, local parks range widely in terms of the facilities provided. Normally, they include ball fields, playgrounds, picnic sites and grassy areas.

GENERAL PLAN RECOMMENDATIONS

Goal V-7 : Conserve national, state and regional recreation areas in the County.

Policy V-7A: Support public and private entities in their efforts to maintain and improve recreation facilities in the County.

Implementation Measure V-7A-1: Encourage support of the construction of the Mokelumne Coast to Crest Trail.

Implementation Measure V-7A-2: Support the construction of the USFS Wild River Campground at the Stanislaus River, near Sourgrass.

Policy V-7B: Limit the burden placed on local government from the development of national, state and regional recreation areas.

Implementation Measure V-7B-1: Require owners and operators of national, state and regional recreation areas to provide facilities and services or to pay for any facilities and services provided by the County.

Implementation Measure V-7B-2: Lobby for federal and state legislation to require recreation areas to fund construction and maintenance of local facilities supporting regional recreation resources.

Goal V-8: Provide adequate local parks and recreation facilities to serve the County's population.

Policy V-8A: Encourage community development and operation of local parks and recreation facilities, especially within and near the County's population centers.

Implementation Measure V-8A-1: Actively solicit technical assistance and funding from federal and state sources for the development, maintenance and operation of local parks and recreation facilities.

Implementation Measure V-8A-2: Support the efforts of communities which demonstrate the ability to form and properly operate a Recreation and Park District.

Implementation Measure V-8A-3: Methods of obtaining local parks for public use include:

- contributions from individual owners and private organizations
- open space dedications of areas being developed
- purchase
- requirement of in-lieu park fee for future purchase

Policy V-8B: Review new land subdivisions and other development projects to assure that adequate land is provided for local parks and recreation facilities.

Implementation Measure V-8B-1: Require dedication of park land and/or payment of fees for the development and operation of local parks.

Implementation Measure V-8B-2: Strive to provide 2 1/2 acres of new local park land for every 1,000 resident population.

Goal V-9: Preserve portions of the County's rivers and streams as a local recreation resource.

Policy V-9A: Balance water resources development with the preservation of streams and rivers in their natural state.

Implementation Measure V-9A-1: Take part in proceedings at the state and federal level which concern water resources development within the County.

Policy V-9B: Protect public access to streams and rivers.

Implementation Measure V-9B-1: Require new subdivisions, consistent with the Subdivision Map Act, to provide public access to water resources for recreation purposes.